THE KUWAIT ENERGY SECTOR

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Profile Upgrade

With oil activities held tightly in state hands, Kuwait faces huge challenges in modernizing its flagship industry. Limited internationalization is taking shape.

ARTICLE BY DANIEL KAYE and ALICE BOURRET

Wedged between Iraq, Saudi Arabia and looking out over the Persian Gulf, the territory of Kuwait is tiny. Its landmass of 17,820 square kilometers is just 3% that of Texas and its population of 2.3 million is a half-million fewer than that of Chicago. Its importance in the energy world is as big as that of Texas, nonetheless. Kuwait remains one of the epicenters of the global hydrocarbon industry, producing 2.4 million barrels of oil per day and holding 99 billion barrels (or 9%) of the world's proven reserves.

In 1938, Kuwait Oil Co. (KOC), jointly owned by the Anglo-Persian Oil Co. (later BP) and Gulf Oil Corp. (later Chevron), made the first oil discovery in Kuwait at Burgan, now the world's second-largest oil field. But the find was said to have been hushed-up over concerns of a German-inspired Turkish invasion as the world hovered on the brink of war. Oil exports began in 1946 and reached more than 5 million barrels that year. In 1975, however, both BP and Chevron were forced to give up their concession when the Kuwaiti industry was nationalized.

In Kuwait's more recent history, the impact of oil-related issues has broadened in scope. The Iraqi invasion in 1990 was partly inspired by Saddam Hussein's claims that Kuwait was stealing 300,000 barrels a day of Iraqi oil through horizontal drilling operations near the two countries' border—something that Kuwait denies.

Moreover, the subsequent damage done to northern oil fields by retreating Iraqi forces—said to have cost Kuwait between 1% and 2% of its reserves—resulted in huge environmental fallout.

"The Iraqis set fire to more than 700 wells, contaminating the soil, devastating some of the desert vegetation and affecting the fishing stock," says Ali Khuraibet, general manager of one of Kuwait's leading environmental advisory companies, Eco Environmental Consultants.

About the cover

Positioned on the Persian Gulf, Kuwait holds 9% of the world's oil reserves.

"The total value of the damage probably exceeds US$50 billion. The environment can rehabilitate itself naturally over 50 years, but through assistance, we can perhaps reduce this to between 20 and 25 years."

Thirty years after nationalization and despite the local populous having a hugely international flavor (there are more expatriates in the country than there are natives), Kuwait's oil industry remains highly focused around the state. All oil-related activities are controlled by the Kuwait Petroleum Corp. (KPC), a government-owned holding company with eight subsidiaries encompassing everything from exploration to refining and shipping and which celebrates its 25th anniversary this year.

Foreign input is restricted to Chevron-Texaco, which part-operates the 5 billion barrels of Kuwait's reserves shared equally with Saudi Arabia in the so-called Divided Zone. Other companies, including BP and Shell, focus on providing training and advice to KOC's technical staff.

The lack of foreign representation in Kuwait, however, is something that finally may be about to change—one part of a process that could see Kuwait step-up its integration with the global business community. But that process has been a slow one. One reason Kuwait has remained in isolation is the absence of technical challenges that would necessitate access to the expertise that it doesn't possess.

Mina Al-Ahmadi is an aging Kuwait refinery that is set for major upgrade.

"It's fairly easy oil here," says Cherian Paul, general manager of local oilfield services specialist Safwan Petroleum. "The lifting costs per barrel are among the lowest in the world—around US$0.80. Maybe Saudi Arabia is paying US$0.40. In Texas, it can be US$11-plus."

Abdul Azeez Al-Rasheed, chairman of Kuwait Drilling Co., adds, "Kuwait is so compact—the furthest rig is 70 kilometers away from you. It's not like in Saudi Arabia, for example, where most of your time can be spent moving from location to location."

Moreover, there have been innovations that have dramatically improved operational efficiency. "Our rigs travel upright through the desert on giant wheels," says Al-Rasheed. "They are custom-made so that the mast bends on hydraulic jacks to avoid the lowest lines on the power grid. The whole process only takes about 30 seconds. In other parts of the world, it would take five to six days to move a rig. We can do it in 24 hours."

Nevertheless, through a combination of the rapid production rates generated by the oil fires, which have left some wells unstable, and by a general decline witnessed in Kuwait's older fields, extraction is becoming trickier. A few well-equipped local service providers are eyeing the potential benefits of more difficult crude.

"Although Kuwait has by and large been lifting oil through natural flow until now, it needs to take the next step," says Safwan's Paul. "KOC could put up 1,000 wells during the next five years using artificial lift, so you are talking about huge business. I can see a very bright future for companies like us who specialize in that area." Perhaps more significantly, industry insiders are beginning to covet the technology and expertise of outsiders, including that used to deal with higher water cut from the northern fields.

Presence abroad

While domestic representation of foreign firms may soon grow, Kuwait's presence abroad is about to expand too. "KPC has given us the green light to acquire opportunities anywhere in the world, including North America, China and Russia," says Bader Al-Khashti, chairman and managing director of KPC's overseas exploration arm, Kufpec.

The majority of Kufpec's 46,000 barrels of oil equivalent (BOE) of daily production (some two-thirds of this gas) is currently produced from the Middle East, Australia, Indonesia and other parts of Asia. Yet as the company seeks to reach its new production target of 100,000 BOE per day by 2010 and increase its reserve base from its current 270 million BOE to 410 million, this could change.

"We analyzed more than 350 opportunities last year. The challenge for us is to find value in acquisition," says Al-Khashti. Partnership decisions are made less problematic by the fact that Kufpec's crude production is not bundled into Kuwait's OPEC quota, he adds.

A final aspect to Kuwait's progress on the international scene is its potential as a gateway for companies wanting to expand in the Middle East—and in particular, those firms participating in the reconstruction of Iraq. Some local trading companies are already in on the act.

"We have a Houston office that's drumming up business from suppliers and now have a sister company in Iraq based in Basra," says Adeeb Al-Awadhi of Petroleum Services Co. "We've just won a US$2.8-million contract to refurbish some of (Iraq's) reactors. There are at least 24 significant projects that we are targeting there at the moment. It is a huge business. They are not repairing the oil sector, they are rebuilding it from scratch."

This may be an improvement on years of relative isolation, but there is no doubt that Kuwait, despite its relative security, simple logistics and ease of communication for English speakers, can still represent a difficult business culture to adapt to and a difficult market to break into.

Kuwait's future

What happens to Kuwait when the oil runs out? Some estimates are that this won't happen for another 100 years, so predictions—pessimistic or otherwise—are worthless. By then, the face of global industry will have changed so much that it is impossible to predict where the value-added sectors will be—or how problematic it will be for

THE KUWAIT PROJECT

In some parts of the world, governments and industry are debating how best to attract the attention and investment of the biggest international oil companies (IOCs). In Kuwait, on the other hand, the debate is about how to keep them on a short enough leash.

A proposal to expose some of Kuwait's more technically challenging—but locally run—oil reservoirs in the north of the country to foreign companies' expertise was first presented to the Kuwaiti legislature in the mid-1990s. But it has faced dogged opposition from those in parliament who are concerned about foreigners edging their way towards control over Kuwait's natural resources—something constitutionally forbidden.

Farouk Al-Zanki, Kuwait Oil Co.

The need for foreign help is obvious—despite Kuwait's reputation for "easy" oil and low lifting costs. "In the past we have enjoyed a relatively low-cost, high-reserve position," says Farouk Al-Zanki, chairman and managing director of Kuwait Oil Co., KPC's exploration and production arm.

"There's still easy oil here, but it's been exhausted over the years. Now we need to exploit a lot of our difficult reserves in a period where demand is even higher."

In one regard, says Al-Zanki, the industry only has itself to blame for its lack of expertise. "After nationalization in 1975, we isolated ourselves from the outside world. We employed Kuwaitis and at one time ended up having no Westerners at all. Then in the post-liberation period, when we suddenly asked ourselves 'how do we go about exploiting our difficult reserves to meet our 3-million-barrel-per-day target by 2005?' we had a problem: nobody had the skills to do what we wanted to do.

"That's when we started thinking seriously about inviting back the IOCs."

The Kuwait Project is seen as a solution. Three consortia are competing in the bid to raise production in five of Kuwait's northern oil fields from the current 400,000 barrels per day to 900,000 by 2020: one is led by ChevronTexaco (with Total, PetroCanada, Sibneft and Sinopec); another by ExxonMobil (with Shell, ConocoPhillips and Maersk); and the other by BP (with Occidental, Indian Oil Corp. and Oil and Natural Gas Corp. Ltd.).

The winning consortium will not receive a traditional production-sharing contract (PSC), but a cash payment linked to the amount of crude recovered. They will also not be able to book the reserves as their own. Kuwaiti officials recently suggested that returns for the winning IOCs could be in the region of US$3.2 billion over the project's 20-year lifespan.

In fact, KOC now has a target to reach 4 million barrels per day by 2020. The extra 1 million barrels will come from additional development from the "easy" fields.

After a draft bill was recently reviewed by the parliament's financial and economic committee, a full debate on the Kuwait Project is expected in the legislature later this year. The exact timing of the commencement of the project is still opaque.

"Being optimistic," says Al-Zanki, "I would say by the start of 2006 we will have the IOCs operating in here. But perhaps mid-2006 is more realistic." It is possible that even this might prove too soon.

The delay has already proved costly. The cost of the whole project has jumped to US$8.5 billion—an upward revision of the US$7 billion quoted until this March. Service-sector contracts are being rethought partly due to the rising price of steel.

Plus, of course, Kuwait has missed out on the current high prices it would have received for its crude had production been stepped-up already. It's been a less than auspicious start. And given the resentfulness towards foreign investors from some quarters to date, it's not difficult to imagine that IOCs could find the future in Kuwait a testing experience.

—Daniel Kaye and Alice Bourret

Kuwait to adapt.

But right now, the country's economy is remarkably skewed: the oil industry accounts for nearly half of GDP, over 90% of export revenues and (on latest figures) more than 90% of government revenues. That alone means that the process of adjustment will have to be large and may not be easy.

Admittedly, the authorities currently tuck away around 10% of annual oil revenues for a rainy day in the Future Generations Fund—currently thought to be worth in excess of US$65 billion. While this might look a prudent move, the amount can hardly be said to safeguard Kuwait's future. For one thing, that money is not being used to train Kuwaitis productively right now. Moreover, when the time comes to spend it, the temptation may be to put the money where returns are the highest—and that may not be in Kuwait.

One source of encouragement is that economic diversity is benefiting from the part-return of a rumored US$100 billion that Kuwaitis have parked abroad in foreign assets—most famously in London property—as security fears ease with the fall of Saddam Hussein. Local asset prices have profited most.

Growth in real estate demand is filtering through to the local construction industry, whose cranes are now a dominant feature of Kuwait City's skyline. The stock market is booming, too. The Kuwait Stock Exchange market index climbed 68% between May 2004 and the start of April 2005.

Downstream

But industrial diversification is also being fueled by the need to maximize the value of existing oil supplies. While the authorities drag their heels on the upstream-focused Kuwait Project, which involves participation by non-Kuwaiti oil companies, the downstream industry is showing more concrete signs of progress.

Bader Al-Khashti, KPC's Kufpec

One is on the refining side—key in transforming Kuwait's abundant heavy crude into lighter, higher value, more marketable products. The Kuwait Petroleum Corp.'s (KPC) refining arm, the Kuwait National Petroleum Co. (KNPC), is embarking on a two-part plan to lift refining capacity from its current 930,000 barrels per day to 1.3 million by 2010.

One part will see US$2 billion worth of upgrades for two of the country's three aging refineries—Mina Al-Ahmadi and Mina Abdullah—largely comprised of new processing units. The second part will see the construction of a brand new US$3-billion, 460,000-barrel-per-day, state-of-the-art complex to replace the current 200,000-barrel-per-day Shuaiba refinery, which will be scrapped.

As well as providing for cleaner, more environmentally friendly end-products, the refinery upgrades should also guard against any repeat of a pair of fatal accidents at Shuaiba and Al-Ahmadi in 2000, in which eight workers were killed.

"The new refinery is not a commercially driven development," says Ahmad Al-Jemaz, head of the new refinery project at KNPC. "It may not even make money. The idea is to supply low-sulfur fuel oil to our national power plants. However, if we were to find gas or acquire it from Iran or Qatar, for example, there will be scope to upgrade the facility into an export refinery."

More peripheral projects have taken off, too. At the Al-Ahmadi refinery, for example, February saw the inauguration of a new US$350-million, five-platform oil pier, which is the largest and most advanced of its kind in the Middle East.

But Kuwait's biggest recent commercial success has been in the petrochemical sector. 1995 saw the establishment of Equate, a joint venture 45% held by state-owned KPC subsidiary Petrochemical Industries Co. (PIC), 45% by Dow Chemicals (originally Union Carbide) and 10% by the publicly listed Boubyan Petrochemical Co., essentially a state-inspired vehicle that allowed local investors to participate.

The introduction of private capital into the hydrocarbon industry turned out to be a raging success. "We have made US$1 billion in profit in the last five years," says Equate president and chief executive Hamad Al-Terkait. "This could be a model that extends into other areas of Kuwait's hydrocarbon industry."

Equate's production began in 1997 and capabilities now include a 650,000-ton-per-year ethylene cracker, feeding into a 500,000-ton-per-year polyethylene plant and a 500,000-ton-per-year ethylene glycol facility. Current production, however, is running some 20% to 25% above nameplate capacity, at around 2 million tons per year across all products.

"Because the local processing industry here in Kuwait is so small," says Al-Terkait, "95% of our production is geared towards export markets, which are mostly in Asia, the Middle East and Europe."

Apart from the technology and knowledge transfers gained from Dow staff, a key aspect to Equate's success, says Al-Terkait, has been the step-up in working practices. "We are an international company operating in Kuwait. Our communication system is very high-level, we set strong objectives on what to achieve each year and we have highly capable and motivated staff. It's entirely different to what you might see in most other companies. And we're a lean organization. Run on normal Kuwait or Middle-Eastern grounds, we would have 50% more staff than we have today."

But for all the talk of unique partnerships and new models, one of Equate's chief advantages has been its proximity to abundant and relatively low-cost feedstock. "Energy costs all over the U.S. and Europe are very high," says Al-Terkait. "No matter what you do product-wise or how well you utilize your inputs, sometimes you still can't cover costs. So there's a tendency to move towards the Middle East. Our gas cost, for example, is very much linked to the formula of the market. But when you compare the gas price in the Gulf to that in the U.S. or Canada, it is definitely much lower."

Now plans are under way for a second olefins project, which would double Kuwait's production to 4 million tons per year by 2008, as well as large aromatics and styrene production projects. All are expected to be run along similar lines to the original olefins venture headlined by Equate, although the aromatics scheme as yet lacks a foreign partner.

All of this, it is hoped, will broaden the country's industrial base, expand its stock of expertise and job opportunities as well as make the economy more resilient to change. Given its resources and the world's growing energy needs, there is little prospect of Kuwait's oil focus shifting during coming years. But with progress upstream wracked by politics and the scope of broader industrial projects expanding, a gentle transition may have just begun. □

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