This month's cover ... shows the President of the OPEC Conference and Kuwait's Minister of Energy, HE Sheikh Ahmad Fahad Al-Ahmad Al-Sabah, at the 135th OPEC Conference (see p4). Photo: OPEC/Diana Golpashin

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Membership and aims

OPEC is a permanent, intergovernmental Organization, established in Baghdad, September 10–14, 1960, by IR Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. Its objective is to co-ordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry.

The Organization comprises the five Founding Members and six other Full Members: Qatar (joined in 1961); Indonesia (1962); SP Libyan AJ (1962); United Arab Emirates (Abu Dhabi, 1967); Algeria (1969); and Nigeria (1971). Ecuador joined the Organization in 1973 and left in 1992; Gabon joined in 1975 and left in 1995.

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Important decisions were taken by OPEC at its 135th Meeting of the Conference held in Isfahan, in the Islamic Republic of Iran. Firstly, the Organization decided to raise, with immediate effect, its oil output ceiling by 500,000 b/d to 27.5m b/d, and proposed an additional 500,000 b/d increase, should oil prices remain at current levels or continue to rise. Secondly, OPEC announced the acceleration of existing capacity expansion programmes, as well as making timely investments to expand capacity over the long-term by Member Countries. Furthermore, the composition of the OPEC Reference Basket of crudes would be increased, from the current seven streams to 11, representing the main export crudes of all Member Countries, weighted according to production and exports to the main markets.

These decisions should have sent clear signals to the market and global oil consumers that the persistent rise in crude oil prices in recent weeks is a matter of concern to OPEC, and that the Organization has the will, and the capability, to increase its oil output ceiling when it is needed, in the hope to achieve more price stability.

Disappointingly, instead of oil prices cooling, they rose on the subsequent days after the meeting. Yet both producers and consumers have acknowledged on many occasions that the market has been well-supplied in recent times, indicating that such prices are not justified given supply/demand fundamentals, especially considering that the build in crude oil stocks is now above its five-year average.

But markets are markets, and it seems that nothing can stop oil from rising of late. Of course there are fundamental reasons for this, rational or irrational, but some of the more concrete factors are: a later winter in the northern hemisphere; unusually strong demand; and price pressure and volatility coming from the increased activity of non-commercials in the futures markets, exacerbated by continuing geopolitical tensions and bottlenecks in the downstream.

If one was to make any attempt to further understand the reasoning behind these price levels, perhaps it would be to subscribe to the view that there may have been a fundamental shift in the call on oil. As the OPEC President of the Conference, Kuwait’s Minister of Energy, Sheikh Ahmad Fahad Al-Ahmad Al-Sabah, put it at the press conference after the meeting – it appears as if “the culture of the market has changed.”

The usual drop in oil demand which is anticipated for the second quarter (2Q), over 1Q demand, is not as large as the historical trend, as well as there being rising forecasts for 3Q and 4Q crude oil demand. This is due to the continued growth coming from the developing world, particularly in the emerging Asian economies, where China and India have registered very strong growth, as well as in the United States – the world’s largest oil consumer.

However, it is precisely the ability of these emerging economies to be able to continue to cope with current price levels that signals cause for concern for organizations like OPEC, because while it seems as if there is no stopping world economic growth, the ultimate question is, how long can this be sustained? The President of the Conference noted several times after the meeting that this was an issue that OPEC was worried about.

If we are committed to raising the living standards for our collective global citizens, then in an ideal world one would hope for oil prices that have the interests of all players at heart. And while markets are being used more and more as financial instruments for profit, and hedge funds and investors in the developed world may be able to afford oil at $51/b, we should stop and think of the real people who are affected by this – consumers – both rich and poor.

But it is the world’s poor we cannot ignore, and as they continue to realize their potential, the fundamentals of the energy world may well be transformed as demand rises – thus the perceived cultural change in the oil market, which OPEC is accounting for in accelerating its capacity expansion plans. Perhaps we are seeing the start of such a positive trend? Let’s hope so.
OPEC sends clear signal

The Iranian Minister of Petroleum, HE Bijan Namdar Zangeneh (c), receives the President of the OPEC Conference and Kuwait’s Minister of Energy, HE Sheikh Ahmad Fahad Al-Ahmad Al-Sabah (r), on his arrival in Iran.
OPEC’s recent decision to increase supply and further expand its output capacity has demonstrated the Organization’s firm commitment to try to calm oil prices and markets worried by security concerns.

At the 135th Ordinary Meeting of the OPEC Conference held in Isfahan, Iran, the Organization decided to increase production by 500,000 barrels per day to 27.5m b/d, with immediate effect, and proposed an additional 500,000 b/d increase if prices remain at current levels or continue to rise.

In taking its decision, the Conference observed in its communiqué that despite the market having remained well-supplied, with OECD commercial stocks at the end of the fourth quarter (4Q), 2004 at “comfortable levels”, oil prices have continued to rise due to a number of fundamental...
factors, such as a “late cold winter spell in the northern hemisphere” and the expectation of continued high demand, amongst other things.

The Organization reiterated its intention to ensure adequate supply to allow for comfortable commercial crude oil stock levels, both in absolute terms and in days of cover, given that the forecasts for demand in the 2Q seem to have defied normal patterns and are unusually high at 82.66mb/d, as well as expected high demand for 3Q and 4Q, of 83mb/d and 85.77mb/d, respectively.

To allow for the anticipated increases in demand, especially in light of a slowing in non-OPEC production, the Conference said that its Member Countries were committed to increasing investment to further build their spare output capacity.

In addressing the press after the meeting, the OPEC President of the Conference, Kuwait’s Minister of Energy, Sheikh Ahmad Fahad Al-Ahmad Al-Sabah, said
that the decision should send three very clear signals to the market, which seems to be worried about security concerns.

“First, that OPEC has the will to increase the ceiling when it is needed; second, the Organization has the capacity; and third, the (extra) 500,000 b/d … can be tapped whenever the market needs it,” he said.
Al-Sabah explained OPEC’s capacity expansion plans further in response to questions from journalists, saying that the Organization’s current spare capacity, excluding Iraq, was around 2.0m b/d, and it had a commitment to further increase by 1.0m b/d by the end of the year.

“We can assure the market, through our numbers, that we can ensure supply until the end of the year … we think we have enough production to secure supply even in 4Q,” he said.

However, he did note the Organization’s concern for urgent, additional refinery capacity to process heavy crudes, considering that a large proportion of the extra oil coming from OPEC is of a heavier type.

When asked about Iraq, and the situation in the country, Al-Sabah said: “We
have been confronted with the Iraqi situation for 14 years now and we have always found a solution, and the right situation for the country within OPEC.”

“If Iraq’s security problems were solved, the country can produce 2.8m b/d, and hopefully that will be the case, and that they will be back as OPEC-11 with improved security,” he added.

Commenting on high prices in relation to the growth in the economy (five per cent for 2004), with a 4.2 per cent projection for this year, he said, “it seems as if high prices have not affected the world economy, but we have to worry about the emerging economies in Asia, Africa and Latin America and the developing countries, and the problems they might have with those prices.”
When asked about the Organization’s proposed change to its Reference Basket of crudes, to increase the number of crudes from seven streams to 11, in relation to any anticipated new price band, Al-Sabah would not be drawn into giving price ranges, but said OPEC awaited the decision of the Long-Term Strategy Committee after they had conducted comprehensive studies on the band.

“We don’t have a price which we say is the OPEC price, but the current prices are not acceptable. We think current prices are high. In the end, OPEC production will reach the demand level which is anticipated, and we have been practising this over the last few years, and this will be fine-tuned. Three or four countries are using only 80 per cent of their spare capacity,” he said.

He added, in relation to price levels over the past few years
Left: The Iranian Minister of Petroleum, HE Bijan Namdar Zangeneh (l), with the Saudi Arabian Deputy Minister of Petroleum, HRH Prince Abdulaziz Bin Salman Bin Abdulaziz Al-Saud.

Above: The Iranian Minister of Petroleum, HE Bijan Namdar Zangeneh (r), with OPEC’s Director of Research and Acting for the Secretary General, Dr Adnan Shihab-Eldin.

Below: The courtyard of the Abbasi Hotel, the venue of the 135th OPEC Conference.
coupled with strong oil demand, that it had appeared as if the “culture of the market has changed”, and that the Organization needed to see how that culture developed considering the strong growth anticipated for this year.

“Usually there is a weakening of demand in 2Q (over 1Q). It seems as if this is not the case now. For 2Q, there is a growth in demand of 1.7m b/d, instead of the usual 800,000 b/d to 1.0m b/d year-on-year change. So we need to see how the culture of the market develops,” he said.

He was referring to the Organization continuing to monitor the market to see whether actual crude oil demand meets the expectations in 2Q, as well as to keep an eye on prices, and if necessary, add another 500,000 b/d to the market.

OPEC, through its decision to increase supply, he said, “has tried to make the right decision to stabilize the market and prices.”
Iran has a very rich cultural history, dating back to pre-Islamic times, which can be seen by the exceptional variety of architectural styles, frescos, crafts, as well as having famous culinary and teahouse traditions. Isfahan was originally laid out as a green oasis, surrounded by sandy mountainous plateaus.
Pragmatic approaches by all parties are needed to address the issues of competing sources of energy, investment and capacity expansion, with the understanding that clean, efficient uses of petroleum are vital to not leave a heavy footprint on the Earth for years to come, notes Saudi Aramco President and Chief Executive Officer, Abdallah S Jum’ah (left) in this article.

One of the most important factors in securing the energy future is the energy mix over the next several decades, and beyond. Some parties advocate a rapid transition from fossil fuels to alternative sources of energy for reasons of both environmental protection and security of supply. While I share their twin objectives and appreciate the depth of their convictions, I strongly believe that rushing from tried and tested energy sources towards still questionable alternatives is imprudent. Such a stance ignores the state of development of alternatives, the seriousness of many unresolved issues associated with them, the demands of global economic development, and the need to eliminate energy poverty in the developing world.

This is a very critical industry that affects the life and wellbeing of every nation. Therefore, we need to craft an energy vision that is balanced and addresses the concerns of all. Anything short of that will run the risk of taxing economies unnecessarily. It is important that we recognize that we live in an interdependent world, that we promote the development of new technologies based on sound economic merits, and that we avoid creating economic overhangs caused by unfounded overreactions and misguided analyses.

A look at the numbers is instructive. Because of the abundance of fossil fuels, their proven performance, and the size and scope of the global hydrocarbon infrastructure, the Energy Information Administration (EIA) of the United States’
It is estimated that the proportion of fossil fuels will rise in the energy mix by 2025, whereas the share of renewables will drop.

While both energy sources will be used in the future, the focus needs to be on developing cleaner fossil fuels.

The recently-opened Qatif Producing Plants Project, the world’s largest crude output facility, raises Saudi Arabia’s production capacity by more than 500,000 b/d.
Department of Energy expects fossil fuels to remain the dominant energy sources for the foreseeable future. In fact, the EIA forecasts that the proportion of fossil fuels in the global energy mix will actually rise from 85.5 per cent in 2001 to 87 per cent by 2025. At the same time, the share of nuclear and other sources, including renewables, is forecast to fall from 14.5 per cent to 13 per cent. Now, if we really wish to "secure the energy future" while protecting the environment, should we focus primarily on the narrow niche of alternative energy, or on more than 85 per cent of supply that will be coming from fossil fuels?

Clearly, the responsible course in the decades to come is to phase in realistic alternatives while developing and deploying cleaner, more efficient uses of hydrocarbons and associated technologies. Given the continued dominance of fossil fuels, even marginally improving their environmental performance will significantly benefit the health of the planet, and I am certain we can go well beyond marginal improvements.

At the same time, we must recognize that economic development also drives social development, spurs technological and scientific progress, and allows people around the world to raise their standards of living. We cannot risk the future of our societies on energy sources, some of which may contribute modestly, while others are prohibitively expensive and lack robust and reliable production and distribution systems.

I believe that in the long-term we will need to draw upon both fossil fuels and alternative technologies. One day, as the alternatives become both technically and commercially viable, they will be in a position to take on greater responsibility for meeting the world’s demand for energy. However, that day is not today, nor will it be tomorrow. In the meantime, we must continue to rely on fossil fuels to meet most of our energy needs, even as we accelerate our efforts to improve their environmental, operational and economic performance. Or, as they say here in Texas, ‘You’ve got to dance with the one what brung you.’

Let me now turn to today’s topic: oil. In particular, I want to look at the prospects for the upstream sector; global refining capacity now and in the future; a set of environmental technologies that will challenge the ingenuity of our scientists and professionals; and the need for increased investment in petroleum-related infrastructure.

**Upstream**

Recently, there has been a good deal of media speculation about the adequacy of future oil supplies. However, the numbers would suggest that such alarming forecasts are injudicious.

The US Geological Survey, for example, places the mean value of ultimate recoverable resources of conventional oil, including natural gas liquids, at more than 3.3 trillion barrels. Of these, less than a third have been consumed to date, with almost 2.4tr b yet to be produced.

In addition, there are also vast resources of ‘non-conventional’ oil — some 7.0tr b initially in place, according to various estimates. Although it is uncertain what proportion of those resources will be ultimately recovered, if advanced technologies could lead to a ten per cent recovery rate on average, another 700 billion b of oil could become available.

Although 80 per cent of these unconventional resources are found in Canada, the United States and Venezuela, at the moment two-thirds of the world’s proven reserves are situated in the Middle East. Similarly, a significant share of the yet-to-be-discovered conventional oil is expected to come from the Middle East.
to be located in the region. This worries some observers, who fret over import vulnerability and supply insecurity. Certainly we need to acknowledge that a peaceful and stable Middle East will translate into a more secure supply of energy, and that efforts to eliminate tension in the region are more vital than ever.

However, advocates of supply security ignore the fact that exporting nations need oil revenues every bit as much as consuming countries need oil supplies. Therefore, it is more instructive to talk about mutual dependence, and to recognize that the degree of interdependence, in all areas of trade and for all nations, will only increase in the future.

International oil trade will increase substantially over the coming decades. However, it should be viewed no differently than trade growth in other goods and services, and is simply another aspect of an increasingly interconnected global marketplace.

On a related matter, it is only rational that alongside free trade agreements and tariff rationalization in various areas of international commerce, policies that discriminate against oil should be done away with as well.

Exceptionally high taxes on petroleum, along with proposals for additional carbon taxes, unfairly target oil — and even surpass the taxes levied against coal, which has a much higher carbon content. The EIA forecasts that over the next two decades or so, the global demand for oil will grow to over 120 million barrels per day. To reliably meet this growth and achieve a secure energy future, additional capacity must be developed in a timely manner. If that is to happen, discriminatory policies against oil must give way to enhanced producer-consumer dialogue, pragmatic energy policies, rational taxation schemes, and greater cooperation on cleaner and more efficient oil-based technologies.

At Saudi Aramco, we’re doing our part to ensure that oil supplies will be available when they’re needed. We continue to identify new reserves through additional discoveries, enhanced recovery techniques, more accurate characterization of our reservoirs and a better understanding of their behaviour over time. We are confident that we can extend that success well into the future given continued advances in exploration.
and production technologies and the fact that vast relatively unexplored areas exists in the Kingdom with potential hydrocarbons to be discovered. We are also committed to utilizing long-term reservoir management strategies and developing, procuring and applying state-of-the-art technologies that maximize recovery rates.

We continue to develop production increments that will gradually raise Saudi Aramco’s maximum sustained capacity, consistent with demand growth, beyond the current level of 10.5m b/d. In fact, we have ambitious expansion plans to boost our capacity to 12m b/d, and also have a long-term crude development scenario that would raise our production capacity to 15m b/d. We are confident that we can maintain these production rates for about half a century. Just last year, we brought on-stream the 500,000 b/d Qatif field, and work is progressing rapidly on both the Abu Hadriyah-Al Fadhili-Khursaniyah development programme and the Haradh increment.

Meeting the increased demand for oil is a challenge for our industry, but just as it has for nearly seven decades, Saudi Aramco is committed to playing its part in meeting this growing need for energy.

Saudi Arabia’s oil strategy calls for maintaining a surplus production capacity of between 1.5–2.0m b/d over its actual production. This surplus capacity, which the Kingdom has maintained at great expense, has played a pivotal role in maintaining market stability. Similar commitment from both producers and consumers will help secure the energy future of our world.

When it comes to oil resources, I believe that there is plenty of new onshore and offshore exploration across the world still to come, especially in an environment of healthy oil prices. We may not find many super giant fields, but many medium and small size fields will continue to be discovered as we explore and drill more and make use of increasingly better technology.

Downstream

But here we must turn our attention to the downstream sector, because our challenge does not end once the oil is out of the ground. Even as crude oil production must increase by nearly 40.0m b/d over the next two decades if demand is to be met, there must be a corresponding expansion in the world’s refining capacity. Given the

As the refined barrel continues to whiten and product specifications tighten, there is a need to build more refineries to process heavier crudes. The Jose refinery in Venezuela, pictured, processes extra heavy crude into sweet, light, syncrude.
nature of much of this additional production, a significant share of new refining capacity will have to accommodate heavy, sour crudes, as the barrel of refined products continues to whiten and product specifications continue to tighten.

We have already seen the effects of the mismatch between available refinery hardware and the types of crude increasingly available in the market. Last autumn, oil producers — including Saudi Aramco — ramped up production to calm the oil market, but refiners geared towards lighter, sweeter crudes could not process all of these additional heavy, sour barrels. Refiners and marketers, regulatory agencies and producers must co-operate more closely to alleviate the product supply-demand imbalances and ensure that consumer demand is adequately met.

The location of future refineries is just as significant as their configuration, however, until now, refineries have been built primarily in consuming nations, but I believe we will see a portion of this new refining capacity being located in producing countries. To an extent, this is due to the permitting constraints associated with new or expanded refineries in many consuming nations. But the growth of producer-based refineries will be driven primarily by their proximity to oil reserves, the flexibility that comes with supplying products to multiple markets from a central location, and the desire to add value to oil supplies prior to their export. Such refineries and mega-manufacturing complexes and clusters — which integrate refineries, petrochemical facilities, and downstream conversion and service industries — also serve to strengthen and diversify local economies while stimulating job growth.

I think this emerging downstream paradigm also represents a new opportunity for international investors, if they are willing to rethink their investment models and better align them with the needs of host nations. Many producing countries have strong upstream capabilities, but can benefit from partnerships in downstream activities, the engineering and technology sectors, and in selected service areas.

The experience of Saudi Arabia and Saudi Aramco certainly demonstrates that promising, mutually beneficial opportunities are available. From the Kingdom’s existing refining and gas partnerships, to the joint-venture expansion of the Rabigh Refinery into an integrated refining and petrochemical complex, and our plans for the development of an export refinery, Saudi Aramco is partnering with world-class companies that recognize the immense potential on offer.

We view co-operation as a two-way street, though, and value just as highly our refining and marketing partnerships located outside Saudi Arabia in the United States, Europe, Asia and the Pacific. We also look forward to strengthening our relationships with the Chinese and Indian petroleum sectors, and to help them meet

![Photo: Reuters/Issei Kato](image)
and expertise of technology developers, national laboratories, academic institutions and related industrial sectors, such as automobile and electric power equipment manufacturers.

At Saudi Aramco, we continue to work on incremental efforts to steadily improve petroleum’s environmental performance. At the same time we have identified three strategic technology areas, which I would like to highlight for the industry’s attention. We believe that one day these technologies may revolutionize the way we view oil as an energy source.

First of these technology areas entails the desulphurization of both whole crudes and oil products. This could help refiners meet the challenge of producing ultra clean fuels from sour crudes, using groundbreaking but cost effective technologies. The second area involves economically managing the issue of greenhouse gas emissions, going beyond carbon sequestration. Potential technologies could include the use of hydrogen enrichment, nanotechnology and other ground breaking techniques. Finally, the industry needs to devise technically and economically viable ways of reforming oil to produce hydrogen, focusing on both fuel formulations and hardware.

Together, these technologies — and others like them — will help meet growing demand for energy and lighten the footprint of our activities on the environment.

As business leaders, we have an obligation to utilize resources wisely and to exercise our stewardship of nature responsibly. That obligation is every bit as important as our role as producers and suppliers of energy and enablers of economic development. We as an industry are committed to maintaining the balance between promoting prosperity and protecting the environment.

**Environment and Strategic Technology Initiatives**

Partnership and co-operation will be critical in another important area: improving the environmental performance of oil. As I noted earlier, the development of cleaner burning fuels, new generations of higher efficiency, lower-emission engines, and even more environmentally responsible oil production and transportation activities are all vital in securing our energy future. The petroleum industry can take the lead in these research and development initiatives, though we should not try and go it alone. Rather, we should work cooperatively, enlisting the aid, support and expertise of technology developers, national laboratories, academic institutions and related industrial sectors, such as automobile and electric power equipment manufacturers.

At Saudi Aramco, we continue to work on incremental efforts to steadily improve petroleum’s environmental performance. At the same time we have identified three strategic technology areas, which I would like to highlight for the industry’s attention. We believe that one day these technologies may revolutionize the way we view oil as an energy source.

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Together, these technologies — and others like them — will help meet growing demand for energy and lighten the footprint of our activities on the environment. As business leaders, we have an obligation to utilize resources wisely and to exercise our stewardship of nature responsibly. That obligation is every bit as important as our role as producers and suppliers of energy and enablers of economic development. We as an industry are committed to maintaining the balance between promoting prosperity and protecting the environment.

**Infrastructure issues**

I would be remiss if I did not address the important issue of investments in crude oil
and product infrastructure. The existing infrastructure, including pipelines, terminals, tanker fleets, and road and rail systems, is coming under increasing strain with the growth in oil demand. This is a worldwide issue that can be seen in several geographic regions including the areas of the former Soviet Union and Russia. As we all know, significant new infrastructure will be required if growing amounts of oil are to be transported from these areas to world markets, including the fast-growing Asian region.

Furthermore, the growth in oil trade means increased traffic through the world’s strategic shipping channels, including the Straits of Hormuz, the Bosphorus Straits and the Straits of Malacca. Managing the safe movement of oil through these key channels and ensuring the security and stability of sea lanes will be critical in ensuring security of supply.

For all these reasons, co-operation between the concerned nations, and investment in and attention to infrastructure will be vital in meeting the future demand for oil in a reliable and responsible manner.

Lastly, I am convinced that global capital formation, including the financial resources of producing nations, is sufficient to fund the wide range of investments required to expand oil supplies. This is true so long as oil prices are sufficiently healthy to attract capital and there are no legislation restricting cross-border investments in producing nations.

At the same time, government bodies and regulatory agencies bear a heavy responsibility in ensuring that permission for petroleum projects and programmes is forthcoming in a timely fashion, so that these investments are both logistically and commercially viable.

I firmly believe that petroleum will remain the bedrock of the world’s energy supplies for the foreseeable future, just as it has for the past century. However, if we are to “secure the energy future,” there are issues that must be addressed co-operatively by a range of concerned parties. These include pragmatic energy policies and a level playing field for the competing sources of energy; increased investment and capacity expansion all along the petroleum value chain; and the understanding that cleaner and more efficient uses of petroleum are vital to protecting the natural environment.

When all is said and done, rising to the challenge is more than just a matter of getting oil out of the ground, maintaining market stability, or even meeting the growing demand for energy. It goes beyond these factors, because energy is so fundamental to our societies, and so essential to the wellbeing of people who live in them.

For me, securing the energy future reliably and responsibly means not only delivering on our commitments as an industry, but also meeting our obligations as individuals to the generations that will follow us, and to the Earth that they will inherit.
The changing face of the energy paradigm

Roger Diwan is an energy analyst at the Washington-based company, PFC Energy, which provides strategic advice on the commercial, economic, and political aspects of the global energy business.

Roger has followed the markets and politics of oil for the last 15 years, consulting to oil and gas companies, governments and traders.

The energy industry has undergone many changes over the past few years — from experiencing higher demand and prices, lower spare capacity, and heightened geopolitical tension in the Middle East, to shifting investment patterns.

In this interview, PFC Energy Analyst, Roger Diwan, gives OPEC Bulletin Editor, Philippa Webb-Muegge, his thoughts on some of these issues, and how they may evolve.
Q: The huge rise in oil demand over the past year has highlighted more than ever the need for adequate investment for future energy security. With oil prices at the levels they have been, why is it that International Oil Companies (IOCs) have chosen to pursue the strategy of engaging in share buybacks rather than re-investing in the industry to boost their portfolios?

A: The question is really how many projects are available for them to invest in, and how much of their portfolio they can move ahead with, in terms of bringing in earlier-than-projected results on existing projects. What we have seen, basically, is that they have not been able to increase dramatically the number of projects both in the upstream and downstream. You haven’t seen a step change, and the question for the IOCs is what do they do with their money. They can blow it like they did in the 80s, but the financial markets would punish them very quickly, so they really need to show very strong financial restraints.

Surely there are other projects the IOCs could invest in, in both OPEC and non-OPEC countries, say deep offshore West Africa, for example, considering their base-case scenarios for investment are much lower than the returns they would get at current prices.

They have already done that, but they have a lot more money to potentially invest. They’re looking at their corporate portfolios and they need to balance the rest. All the big projects have been funded, they are moving ahead, on time, or slightly behind, and they are looking at new areas to go to, but they are not finding the scale of projects to invest into in the oil sector.

They are finding that in the gas projects, LNG. The big oil companies need big projects and they need to place their cash somewhere. You know a 20,000 b/d field in ExxonMobil’s portfolio doesn’t show up. So they need scale, and the companies that merged in the late 90s, they have gone very big, and the requirement to replace reserves and production is very high, and they can’t do it with small projects.
Surely the opening up of countries like Libya will make a lot of difference to the IOCs’ investment portfolios, especially US companies, and also Algeria, which has had licensing rounds issued in the last few years.

Yes, I mean these companies which really need big reserve replacements and production increases cannot afford not to be in any of these countries. If you want production you need to go there. But the problem is, you don’t want small exploration lots because this is not how you are going to grow by getting involved in small projects. You need to have a much wider access and IOCs are trying to negotiate access to larger reserves with these countries — some countries are interested, some are not.

So basically the smaller exploration lots are going to go to the smaller companies.

Yes.

What are the other alternatives for IOCs?

They would like to make big deals with the National Oil Companies (NOCs). So what they are saying is ‘let’s look at your production and see what we can do with your fields’, and this is where it becomes difficult because some of the NOCs say ‘no thank you very much, we can do it ourselves’.

Do you think that the NOCs’ positions will change?

The question is really what the government wants. There is often tension between the government and the NOC. Often the NOC
does not see the need for large investments, production-sharing partnerships, or joint ventures, but sometimes the government sees the need. But the important question is what the shareholder (be it government or private) needs to do with the oil and energy sector, and different countries have different views. The amount of IOC involvement depends of course on the ability of the NOC in terms of its available technology, or the technology which they need, the difficulties of the fields, the amount of capital required, the ratio of oil to gas — you have to look at all of these things. A lot of countries obviously do not have as many financial restrictions with higher prices, but they still have a constraint about how much they want to re-invest in the industry, and how much they want to take risks — a lot of the national companies are not going to do a lot of exploration.

It is perhaps not prudent for them to do so. You can lose a lot of money. The question is, do you want to take the risk yourself, or do you want somebody else to risk that money.

Diwan says that small exploration blocks for companies as large as ExxonMobil, listed here on the Nikkei in Tokyo, do not make much difference to their investment portfolios — they want large-scale projects to replace reserves.

The reality is that future returns on oil for non-benchmark crudes will never be as attractive as the North Sea grades or WTI. In terms of IOCs expanding their portfolios, maybe they need to rethink their investment terms, in relation to budgeting and lower returns?

Yes, one of the issues is that the value of the barrels produced in OPEC Countries, or in a number of countries, are much lower for the IOCs, and that’s not only for the metric transition they need to go through to replace the declining barrel in the North Sea or the US with new barrels elsewhere, but that obviously the investment terms are very different. The IOCs can adjust themselves to
the notion of how to do that, the question is would the financial market adjust, and that is a big issue.

So where do you see the future of oil in terms of energy security in relation to these factors? Surely the financial market needs to make adjustments, or don’t you think they would even contemplate that because of the risk involved?

It is very difficult to manage an oil company when you’re looking at quarterly results, especially when you need long-term investment and long-term risks. What are oil companies?

They are companies who know how to take risks — geological risks, political risks, market risks, and the question is, how are they being rewarded for it, and how does the financial market understand these risks and price them.

But the returns are phenomenal — and have been.

Yes, they can be. But the market somehow does not believe that that is going to last. Everybody believes this is a cyclical business, still is a cyclical business, and what goes up is going to come down at one point. Things can change, especially when demand shrinks.

Do you think it is a possibility given the growth in China, India, and in countries like

OPEC Members such as Saudi Arabia, Kuwait and the United Arab Emirates have made a commitment to expanding oil output capacity. Pictured is Crown Prince Abdullah turning the valve to inaugurate the Qatif Producing Plants in Saudi Arabia.

Photo: Aramco/Abdullah Y Al-Dobais
the US, where the call on crude increased substantially over the past year?

Yes it is possible, it’s just that you have high global economic growth at present, but that will disappear — it goes up and goes down. You have a lot of weaknesses in the global financial sector, the global economy, so at one point, if those things are not resolved you have a global recession, and recessions will bring down demand. And I do believe that actually the Chinese demand is cyclical.

It’s at the high end of the cycle, but we have seen in the last 12 years that we have had two to three cycles and they are well linked to the global economy. Having said that, the Chinese have the ability to constantly reform which is quite difficult, to be on the edge of reform, but they seem to manage that pretty well.

So it’s also a question of how long consumers can cope with oil prices being at current levels?

The oil price is not that high at the moment because not everybody is importing WTI — nobody is importing WTI actually — so nobody’s paying $50/b, so the price impact really needs to be looked at a bit more carefully because the headline price of $50/b is not what the consumer will pay.

What about the erosion of the spare capacity cushion, and its influence on prices. What incentives are there for countries like OPEC, and other producers, to invest in spare capacity in a big way?

I think that the spare capacity issue is a big structural change in the market. OPEC has been coping with excess capacity since 1985, and trying different mechanisms to cope with it. But obviously as long as this excess is hanging over the market, the market always factors it in, which means prices are going to remain in a much lower band. The perception and the reality of low excess capacity in OPEC, and the fact that most of the countries do not have any more excess capacity, changes the dynamics among the OPEC Countries, and elsewhere, when it comes to discussions about quotas, cuts and increases, and has added a very strong bullish element to the market.

And add the geopolitical factors to that …

Yes, the geopolitical issues and the energy security issues, the supply security issues which have emerged in the last three years, combined with a low spare capacity
cushion, which have created a price vortex, in a way, where the smallest incident anywhere in the world complicates or exacerbates the price reviews. On top of that, the risks have increased, the US’ policies, the Iraqi war, the post-war problems in Iraqi production, the terrorist attacks which have occurred on facilities, and the risks of more attacks, with the key target being Iraq, and potentially the rest of the Gulf. All of these things have created an upside risk for prices. But a lot of the new investors in the oil market, hedge funds, are willing to take the upside risk at certain price levels, and they believe that current prices are a realistic target.

Which of course makes it easier to expand excess capacity. As to who will do it, everyone always looks to OPEC to provide it — where is the justice in that?

That’s right — why should a country like Nigeria, with a GDP per capita of $350, invest in spare capacity to ensure the supply of the United States, which has a GDP per
capita of $35,000. So you can ask why the Americans don’t do that, in that respect. The problem is, the international oil companies are not going to invest in spare capacity, that’s not what their shareholders are asking, and it is also difficult for governments to invest in spare capacity. There are very few countries in OPEC who can afford to build any spare capacity — Saudi Arabia, the United Arab Emirates, Kuwait — and perhaps Qatar, even though Qatar has a much smaller oil reserve position to start with. These countries are doing it, but it takes time. They need to prioritize, so they don’t overdo it — why should you spend billions of dollars in investment to reduce the price of your only export?

But the thing is, the oil market only works with spare capacity. If you look at the history of oil prices, the history of the industry, it always has some sort of global producer managing supply, restricting it at times, because small increases in supply have created small increases in stock, which have had a huge impact on prices. So you need to ensure that you can manage that. OPEC has to manage that because there is a strategic value in maintaining spare capacity that those three countries do understand, and that they can afford, in many ways, to engage in. However, it needs to be balanced with the need of more oil revenue.

So what do you see as a comfortable spare capacity cushion?

It depends what your price target is!

Some people say 3.0–4.0m b/d or something along the lines of 2.0–3.0m b/d. Perhaps the market should factor in the issues involved and come to terms with the fact that we may have to live with a lower spare capacity cushion?

Sure, but it’s also the quality of the oil that’s spare. If it’s heavy oil, I’m not sure that the heavy crude in the Gulf will have a major impact on the market, so there are a lot of issues and I don’t think there is a number. It’s where you sit that will tell you what the number is. The spare capacity cushion should be sufficient to be able to replace one major producer, that’s basically it. If you have one major outage. If Malaysia’s NOC, Petronas, may emerge as the one of the global competitors to watch out for in the future.

Pictured are the Petronas Twin Towers in Kuala Lumpur.
there are two major outages, like we had in early 2003 with the Venezueian strike, then the Iraqi war, and post war, we saw that at the time OPEC could cope, but it could cope at the price of drawing down stocks very, very fast.

Also, there is spare capacity in the consuming countries, not on the supply side, but the stocks, so those are supply capacity cushions. What’s interesting is that if OPEC is struggling with how to build spare capacity, obviously the consuming countries are also struggling with the issue of when to use strategic reserves — how much they should have, how they should build them, who should build them, and what type of crudes they should be. There is a growing trend on the side of both producers and consumers to co-ordinate these issues.

The bigger question is what’s the goal — is the goal price stability; I don’t know if people want stability or volatility — it’s very difficult to tell from the actions sometimes. You know, many of the questions we have been asking for years in the industry, that everybody has been asking theoretically, they are now a reality, and you know politics plays a role, investment plays a role, and the ability of the industry to react quickly is a real issue.

In terms of reacting quickly to account for changes in the energy chain, let’s talk about the lack of refining capacity, especially in the USA, to be able to refine heavy crudes, which are in abundance. We don’t hear of new refineries being built in the US — are there adequate upgrades being made currently to handle heavier crudes, for example?

The industry has invested a lot in the last 15–20 years, both in the US, Europe and Asia to cope with two trends, in Europe and the US.

One is on the shifting of the product demand slate — to go for more diesel in Europe and more gasoline in the US. Two is that refiners are also trying to adapt to the new product specification changes, the more stringent specification changes. The investments that have been made were not for increasing refining capacity because we have a lot of excess refining capacity after the 1985 collapse.

So refiners are struggling to keep up with fuel specification changes?

Well, they have tried to actually rationalize and shrink refining capacity because they had too much before, and the refining market has been awful, this is not the business where companies have made a lot of money in the last 20 years. The average return is three to five per cent, and that’s minimum, and at the same time you have all these environmental concerns. It is very difficult to build a new refinery because nobody wants a new refinery.

So you can only expand the tools you have, so it limits the number of players — only the people who have refineries can dispatch products — it’s very difficult to make a new entrance into the refining market.

Would it make sense for OPEC Member Countries to build more refineries?

I think it is more that the industry is coping with one issue, and that is that the refining industry disintegrated in the 80s. The question is how do you reintegrate it, and how much the large NOCs agree to this, both on the consuming and producing side remains to be seen.

But then again, you increasingly see Chinese companies going and finding new production assets, and you see more NOCs from producing countries looking to increase their refining investments. But why should they invest in refineries which have lower economic returns?

Turning to the futures market, do you think traders fully understand the complexity of the commodities they deal in, and the implications of the signals sent to the market?

The futures prices react to very short-term signals which are very imprecise, and they reflect the quality of the wisdom of the trading community in a really short-term time frame. I think the price is always right. The signal from the market is always right. Whatever that is.

Do you seriously believe that?

Yes, absolutely. Supply and demand in the short-term is what the price tells you. It is very difficult for an analyst to say ‘no, it should be $5 lower.’ The price is right.

But don’t you think the traders overreact?

Of course, there is a lot of noise in the price formation, and there is overreaction, misunderstanding, but it’s a reflection of the information they get.

How could prices better reflect fundamentals?

This is an industry which needs to move huge volumes of crudes — it’s complicated — and we don’t know how to calculate this sometimes because a lot of countries don’t give us decent statistics. It is that simple. Every month there is a group of analysts — we sit down and we do our forecast on OPEC production.

It is very imprecise, we do not know the accurate production figures or where the oil is going. So this is what we tell our traders. The price, or the noise in the price formation, reflects the lack of knowledge and the ability to be able to track the data very closely. That’s the function of what it is.
But certainly very unbelievable stories seem to be expressed in prices sometimes — you see that in huge fluctuations.

But after a day they’re gone.

But you wonder why that piece of news, or rumour, is actually believed in the first place.

Well, if one believes it and acts on it, the other half will have to act upon it, even if they don’t believe it.

So basically it’s a herd mentality.

The fact is if the price is going up, as a trader I’ve got to cover myself, I don’t care why it’s going up. I mean, you know, these are rational decisions they take.

If you were to change the way in which crude was traded, or if you were going to introduce some checks and balances into the process, what would they be?

Well now right, you know, all the prices are priced on WTI which is a physical crude in the US mid-continent, which is the furthest away from the big production, but if you want to have more price reality, I think you should price some of the Gulf crudes on the spot market, to create regional benchmarks, that would be a big improvement.

If that was the case, you wouldn’t be pricing on WTI which is $50/b, while Arab Medium is something around $40/b. The perception of oil is $50/b, but the real price of it is $40/b, and so you need to have some more realistic benchmarks for the spot market. Of course it has an implication for the producer, and a lot of producers have not been willing to do this. That is one of the issues.

So it’s one thing to keep complaining about the price structure, and another thing to do something about it.

How do you see the role of NOCs developing over the next few decades? Do you see any trends emerging?

I think some of the NOCs will emerge as real global competitors and the fierce competition among the oil companies is going to have to accommodate the emergence of very large NOCs from China, India, Russia and the Middle East. What will be interesting is the consuming countries’ absence. The Chinese and Indians are quite aggressive to go abroad and Russian NOCs will also emerge as global competitors because they have so many reserves.

Do you think that we will increasingly see Chinese and Indian NOCs doing JVs with Member Countries?

Certainly, they will cut out the middle man, and they do not need the IOCs in between. Sometimes they will need it, especially for the gas, but also you have the emergence of other NOCs such as Petrobras, Petronas and PetroChina — these companies are really emerging as the global competitors.

As far as IOCs go, do you see another wave of mergers, and if so, what kind of mergers would we be looking at?

I think you’ll have another run of consolidation in the industry as the full impact of high prices starts to shake up the industry a bit. Also, the NOCs will be part of that shake-up.

You mentioned that the IOCs will still be needed for their expertise in gas, and there has been a trend for some IOCs to pursue gas quite aggressively over the last few years, how do you see this development evolving?

If you look at the portfolios of the large IOCs, their investment in gas is quite big. If you look at their reserves and production rates, both in oil and gas, they have much less reserves of oil than gas. So they are shifting their investment from oil to gas.

They have more opportunities and larger-scale projects in the gas sector, are more integrated, control more of the supply chain and the value chain, which basically means they have more meaningful investments and returns on those investments.

Thank you very much for your time Roger!
Kyoto Protocol

comes into force

by Philippa Webb-Muegge
The Kyoto Protocol which aims to curb air pollution blamed for global warming came into force at midnight New York time, on February 16, seven years after it was agreed.

The accord requires countries to cut emissions of carbon dioxide and five other greenhouse gases.

The United Nations Secretary General, Kofi Annan (pictured left), said in a video message broadcast in a ceremony in the ancient Japanese capital of Kyoto, that the day was one to be celebrated, but added that there was no time for complacency, the UN News service reported at the time.

“By itself, the Protocol will not save humanity from the dangers of climate change,” Annan said.

“I call on the world community to be bold, to adhere to the Kyoto Protocol, and to act quickly in taking the next steps. There is no time to lose,” he stressed.

The world’s biggest polluter, the United States, has not signed up to the treaty, saying it would be detrimental to the country’s economy.

Australia is the other major developed country which has chosen not to sign the treaty, while big developing countries like China and India are not required to meet specific targets for now.

After the US President, George W Bush, withdrew US support for the Protocol in 2001, Russian ratification, which took place in November last year, became vital for the accord to enter into force.

Under the 1992 UN Framework Convention on Climate Change (UNFCCC), it was agreed that the Protocol had to be ratified by at least 55 industrialized countries, accounting for at least 55 per cent of greenhouse gas emissions in 1990, for it to become legally binding. So far 140 countries, both developed and developing, have ratified the accord.

The European Union and Japan, for example, are to cut their emissions by eight per cent and six per cent, respectively, but for many countries, achieving the Kyoto targets will be a major challenge that will require new policies and approaches.

While it is widely accepted that global warming is taking place, it is less unclear at what speed the change is taking place.

The UNFCCC Executive Secretary, Joke Waller-Hunter, in her keynote address in Kyoto, pointed to indications of climate change just in the past seven years.

“Changes to polar ice, glaciers and rainfall regimes have already occurred,” she said.

“We see an increasing number of extreme weather events, such as droughts, floods and hurricanes. While more research is needed, these alarming signals confirmed by the scientific community keep climate change high on the political and business agendas in many countries,” she emphasized.

Meanwhile, the Japanese Prime Minister, Junichiro Koizumi, issued a statement welcoming the treaty, but also called on non-signatories to rethink their positions.

“From now, we have to build a system in which more nations will work together under the common framework to stop global warming,” he said.
Looking beyond Kyoto

When the Kyoto Protocol came into force last month, there was no shortage of news reports and commentaries questioning whether the process of ratification would make a big difference to global warming, particularly in offsetting CO₂ emissions.

The climate change discussions over the years have been controversial because of the difficulty in proving that there is such a thing as global warming, not to mention measuring emissions outputs or savings, or the avoidance of emissions.

Many computer simulations of the effects of climate change on the global weather system have been attempted. One of the most recent attempts has been made by Oxford University in association with the International Climate Change Taskforce, the results of which were published in *Nature, January, 2005*.

The study addressed the prospect of global warming by running computer-based simulations thousands of times over, and distributed to a wide sample, with very slight adjustments in climate approximations or scenarios, to determine what kinds of temperature rises the world may experience.

The study, based on the assumption that the levels of carbon dioxide in the atmosphere will double from pre-industrial levels (which the study concludes may happen by the middle of the century), has reported that there will be a rise in the earth’s temperature of 2–11° Celsius, and says that society needs to act quickly to avoid this.

The European Union has backed the Kyoto Protocol approach as the way forward to address global warming, being very much the drivers behind the ratification of the accord.

The United States, under US President, George W Bush, is not convinced that the accord will adequately address the problems of climate change, and says that more needs to be done. Australia is one of the other major developed countries which has followed the position of the US.

So what are some of the basic arguments?

USA and Australia

The USA and Australia say that implementing Kyoto would be too expensive and ineffective in tackling the problem of climate change, especially considering China and India do not have commitments to reduce their emissions. They also say that the amounts of gases that are being reduced are very small compared to the reductions predicted as being necessary to reverse the warming process.

Moreover, the Kyoto approach to tackle climate change is also highly detrimental to their economies, and other approaches can be sought that are not based on meeting specific ‘targets and timetables’, as is the case under the Kyoto Protocol.

The US and Australia have adopted a voluntary approach to reduce pollution by providing incentives to reduce emissions through the adoption of technology or energy efficiency improvements. They see technology as the answer to this challenge. Technologies such as carbon sequestration and hydrogen fuelled vehicles, among several other initiatives.

While the current US Administration has chosen not to be a part of the Kyoto accord, there are many individual states which are adopting, or planning to adopt compulsory greenhouse gas (GHG) reduction targets in line with the spirit of Kyoto.

In addition, Australia, a major coal producer, has said it is on track to cut emissions by eight percent below 1990 levels by 2012, and plans a 30 percent reduction by 2050.

These claims, like all assertions, remain to be seen and very much rely on adequate resources being streamlined into developing appropriate technologies, as well as providing fiscal and other incentives to ensure change takes place without any formal commitment or accountability.

Regional shares of CO₂ emissions – 1973 and 2002

<table>
<thead>
<tr>
<th>Region</th>
<th>1973</th>
<th>15,668 million tonnes (mt) of CO₂</th>
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</thead>
<tbody>
<tr>
<td>OECD</td>
<td>65.9%</td>
<td></td>
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<tr>
<td>Former USSR</td>
<td>14.4%</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>5.7%</td>
<td></td>
</tr>
<tr>
<td>Non-OECD Europe</td>
<td>1.7%</td>
<td></td>
</tr>
<tr>
<td>Bunkers</td>
<td>3.7%</td>
<td></td>
</tr>
<tr>
<td>Latin America</td>
<td>2.7%</td>
<td></td>
</tr>
<tr>
<td>Asia*</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>Middle East</td>
<td>1.0%</td>
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</tbody>
</table>

Calculated using IEA’s Energy Balance Tables and the Revised 1996 IPCC Guidelines. CO₂ emissions are from fuel combustion only.

* Asia excludes China.

One of the major European initiatives to combat climate change, in view of it supposedly being able to meet its targets under the Kyoto Protocol (Europe has collectively said that it would reduce its emissions by eight per cent below 1990 levels by 2012) is the Emissions Trading Scheme (ETS), which was launched on January 1 this year.

The idea is that each country submits its anticipated emissions output figures to the EU, and then is formally allocated an emissions count, determining how much they can pollute. If the country does not use up its allocations, it can sell its credits to another country which is polluting beyond its allocations.

But the launch of the ETS has not been without its problems. Working out allocations for economic instruments such as the ETS is incredibly complex, and such an instrument will test the resolve of many a country.

This was the case when Britain recently submitted revised allocations to allow its industry to emit higher than previously approved levels of GHG emissions, after alleged lobbying from industry which maintained it would be at a disadvantage when other countries were not handicapped by onerous targets. This was then countered with a legal threat from Brussels.

While it is too soon to make any conclusions about the ETS, one questions whether specified allocations for countries really will be able to be assessed properly for the purpose of emissions trading.

However, considering the potentially huge financial gains to be made from the ETS, perhaps the will to succeed in search of both leeway and profit will be greater than the initial problems.
The (February, 2005) Oxford Institute for Energy Studies (OIES) Comment by Malcolm Keay titled CO₂ emissions reduction: time for a reality check? addressed some of the issues surrounding the measurement of emissions, and the policies which are being adopted in the UK and the EU to be able to meet their commitments under Kyoto.


Essentially, Keay questions whether the abovementioned reports “amount to a realistic assessment of the policy measures adopted to meet the targets.”

His conclusion in analyzing the contents of the reports was that “the policy measures favoured in the UK and EU have not delivered significant CO₂ reductions and are clearly inadequate to the longer term challenge.”

He points to the significant CO₂ emissions reductions made between 1975 and 1997 as a result of the energy mix changing, accounting for a 20 per cent reduction in CO₂, which actually had nothing to do with the Kyoto Protocol coming into being.

These reductions were due to the power generating industry switching from coal to gas, and also to nuclear energy. Keay argues that the gains made on these switches to other energies (gas) have been pretty much exhausted, highlighting that few substantial, further savings can be realized.

There is also a problem with the reporting of the six greenhouse gases included in the Kyoto Protocol as being largely responsible for global warming. He also points to the lack of clarity when trying to assess whether the reports refer to CO₂ or GHG emissions as a whole.

In terms of GHG emissions reductions in the UK and the EU, Keay says that in both areas there were significant decreases in the early 1990s which have subsequently stabilized.

“In other words, the recent trend (ie ironically, since the signing of the Kyoto Protocol) shows a relative deterioration in performance,” Keay says, adding that most of the significant reductions have been made in the non-CO₂ gases.

1. Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulphur hexafluoride (SF₆), perfluorocarbons (PFC's), hydrofluorocarbons (HFC's).
“Although the five non-CO\textsubscript{2} gases in the Kyoto basket current account for only around 15 per cent of GHG emissions in the UK, they have contributed half the emissions reduction to date; across the EU they account for the whole reduction (indeed, more than the whole reduction ie CO\textsubscript{2} emissions in the EU-15 have actually increased since 1990),” Keay points out.

Another twist to the story is that the major contributors to CO\textsubscript{2} emissions, international aviation and shipping, are not included in the emissions counts under the Kyoto Protocol.

“Were these emissions included in the calculations, they would wipe out nearly all the small reduction in GHG emissions since 1990 across the EU,” the OIES Comment says.

**Fuel shares of electricity generation 1973 and 2002**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total TWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>6,111</td>
</tr>
<tr>
<td>2002</td>
<td>16,054</td>
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</table>

<table>
<thead>
<tr>
<th>1973</th>
<th>Hydro 21.0%</th>
<th>Nuclear 3.4%</th>
<th>Coal 38.2%</th>
<th>Gas 12.1%</th>
<th>Oil 24.7%</th>
<th>Other* 0.6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>Hydro 16.2%</td>
<td>Nuclear 16.6%</td>
<td>Coal 39.0%</td>
<td>Gas 19.1%</td>
<td>Oil 72.0%</td>
<td>Other* 1.9%</td>
</tr>
</tbody>
</table>


Bearing in mind that the transport sector is expected to increase exponentially during the next century, and the implication that CO\textsubscript{2} emissions from cars are expected to play a part in contributing to global warming, it presents itself as a major policy issue for many governments — not to mention the emissions from aviation and shipping, which are not included in the Kyoto Protocol.

It is well-documented that the projected increases in energy demand will take place in the electricity and transport sectors in the developing world, and 90 per cent of this energy will be provided by fossil fuels.

The World Business Council for Sustainable Development says that while many people advocate a move away from fossil fuels, reality paints a different picture because presently there is no viable, cost-effective alternative to provide the amount of energy the world will need in the future.

It says, in addition, that alternative “transport and energy infrastructures can take up to a century to develop.”

The Council emphasizes that “limiting CO\textsubscript{2} emissions from transport to sustainable levels is an important goal in addressing climate change”, but equally highlights that getting close to achieving this goal will take around three decades to realize.

The reasons behind this lie in the types of vehicles on the roads, the emissions they emit, and when these vehicles will be replaced by new cars and the adequate infrastructure to be able to supply cleaner fuels.

The Council says that light duty vehicles (LDVs) represent around half of the transport sector’s CO\textsubscript{2} emissions.

“To achieve significant CO\textsubscript{2} reductions from transport, these vehicles would have to be replaced with new advanced technology vehicles.

“However, the typical life of a car is some 12–20 years and also, the need to refit fuelling stations (with) lower carbon fuels could limit the take-up of new vehicles,” the Council says.

So even if cleaner vehicles were put on the roads that emitted no CO\textsubscript{2}, “it would not be until 2040 that the total number of traditional vehicles in use begins to decline.”
In December 2004, UK drivers paid a 74 per cent government tax on the retail price of petrol, which amounts to a 280 per cent markup on the net price of fuel.

To break it down further, drivers in the UK paid (in US dollars) $1.50 for a litre of petrol (or 79 pence) — out of that, 22 cents was VAT or sales tax, and 89 cents was excise tax. The other 39 cents went to the price of crude, refining, distribution, transportation and profit.

OPEC has been unfairly blamed on many occasions for high prices at the pump. Clearly, this blame should be attributed elsewhere.

### Tax breakdown

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OPEC has been unfairly blamed on many occasions for high prices at the pump. Clearly, this blame should be attributed elsewhere.
It is in the interests of petroleum producers to develop cleaner fuels which would essentially ensure oil’s environmental, sustainable use for years to come.

Accordingly, OPEC Member Countries have stated many times their commitment to developing cleaner oil-based fuels and technologies.

Saudi Aramco recently said that it was looking at the possibility of reforming oil-based fuels, or methanol, to obtain hydrogen. While that still may be some time away, analysts generally believe that if the various technological and economic issues related to the use of hydrogen were resolved, hydrogen in its early stages of use would be sourced from fossil fuels, including oil.

In addition to these initiatives, many of OPEC’s Member Countries hold large reserves of gas, and have made impressive steps over the last 30 years to reduce gas flaring, and instead capture the energy for use.

Iran, Qatar and Saudi Arabia are ranked as having the second, third and fourth largest gas reserves in the world after Russia, and Indonesia and Algeria are the leading exporters of LNG in the world.

**OPEC Countries which have ratified Kyoto**

- Indonesia
- Nigeria
- Qatar
- Saudi Arabia
- United Arab Emirates
**Developing countries**

The Group of 77 and China represent the developing world. Their view is that developing countries cannot be held responsible for increasing GHG emissions in the Earth’s atmosphere as developed countries have used cheap fossil fuels on a large scale over many decades in order to become industrialized.

Since this is indisputably the case, addressing climate change rests with those countries which are able to deliver their technical know-how in attributing appropriate resources to lead the way on how to resolve this dilemma.

Nonetheless, it is the developing world that will probably be hit hardest from any of the effects of climate change and they will also be less able to cope with them.

The G77 and China embraced the outcome of the United Nations World Summit on Sustainable Development, held in South Africa in 2002, when it stated that poverty eradication was the overriding priority of the world.

The outcome was an acknowledgement that environmental concerns cannot be addressed in the midst of widespread poverty.

Access to modern energy services is a basic prerequisite to fight poverty and, therefore, it would be unreasonable and unfair to place limits on energy use on those parties that are not historically responsible for creating the problem in the first place, and represent a smaller fraction of global emissions.

Of the developing countries, China and India emit a substantial portion of non-OECD emissions. Nevertheless, on a per capita basis, their emissions are well below world averages and several times lower than those of industrialized countries.

*Poverty eradication is the overriding priority of the world and access to energy is a basic prerequisite to fight it. Oil and gas will provide the world’s energy for many years to come, while alternatives, such as solar, will also be of use on a smaller scale.*
Qatar confirms lead in LNG with multi-billion dollar deals

Pictured are (l-r): Heir Apparent of the State of Qatar, HRH Sheikh Tamim Bin Hamad Al-Thani, HRH Prince Andrew, the Duke of York, Qatar’s Second Deputy Prime Minister and Minister of Energy and Industry, Abdullah bin Hamad Al Attiyah, who is also the Chairman of Qatargas II, at the signing ceremony of the multi-billion dollar deal with ExxonMobil in Doha.

**Doha – Qatar Petroleum** (QP) signed a string of multi-billion dollar deals with international oil companies in February to supply liquefied natural gas (**LNG**) to North America and Europe, reinforcing Qatar’s leading position in the LNG industry.

In one of the keenly watched developments in the global energy industry, QP and ExxonMobil announced the ground-breaking deal which, once operational, will be the world’s largest LNG project.

The $12.8 billion project, which involved the single largest energy financing round ever, is owned and managed by an incorporated joint venture, Qatar Liquefied Gas Company Limited (II), or Qatargas II, where QP has a 70 per cent stake and ExxonMobil 30 per cent.

With more than $7.6bn in interna-
tional financing in place, the scale of the project dwarfs any previous global LNG developments.

Qatargas II involves the delivery of 15.6 million tonnes per year of LNG to the UK for 25 years, with the first deliveries expected in winter 2007/08.

Qatargas II will further commercialize the large gas reserves of the Qatar North Field, which has estimated recoverable natural gas resources in excess of 900 trillion cubic feet (9.3 per cent of the world’s proven resources).

A day after this landmark deal was signed, QP, ExxonMobil and Total then announced the signature of a Heads of Agreement (HoA) for the acquisition by Total of a 16.7 per cent equity participating interest in Train 2 Qatargas II and the purchase by Total of LNG from the Qatargas II company.

Total will purchase up to 5.2m t/y of LNG from Qatargas II for a period of up to 25 years. Taking advantage of Total’s diversified and strong presence in the gas markets of the Atlantic Basin, the LNG would be primarily intended for deliveries to the UK, France and the USA.

At the same time, QP and Shell signed a $6.0bn deal to supply LNG to North America under the project name of Qatargas IV.

The Qatargas IV project comprises the integrated development of upstream gas production facilities to produce 1.4bn cu ft/d of gas and substantial quantities of associated liquids from Qatar’s North Field—a single LNG train yielding approximately 7.8m t/y of LNG for a period of 25 years.

Qatargas IV is a joint venture between QP and Shell, with a 70 per cent and 30 per cent equity interest, respectively. LNG deliveries are expected to commence around 2010/12.

Addressing a press conference after signing the landmark deal with ExxonMobil, the Heir Apparent of the State of Qatar, HRH Sheikh Tamim Bin Hamad Al-Thani, in the presence of HRH Prince Andrew, the Duke of York, pointed out that the Qatargas II project was of enormous significance to Qatar, the UK and the international LNG market, while further emphasizing Qatar’s position as the world leader in the LNG business.

“Given its significance to the world gas market, the Qatargas II project reflects a major milestone in our capacity to meet the growing international demand for natural gas and hydrocarbons,” Sheikh Tamim said.
Qatar’s Second Deputy Prime Minister and Minister of Energy and Industry, Abdullah bin Hamad Al Attiyah, who is also the Chairman of Qatargas II, welcomed the development as a crowning moment in Qatar’s well-established natural gas industry.

“The establishment of Qatargas II allows us to push the boundaries of the LNG industry and provide the United Kingdom with a significant additional source of natural gas,” he noted.

“This project will incorporate leading step-out technologies to capture economies-of-scale and allow Qatar to compete successfully in more distant markets,” he said.

Meanwhile, the President of ExxonMobil, Rex Tillerson, said the company was pleased to join QP in helping develop the state’s energy industry.

“The Qatargas II project is a landmark achievement in which ExxonMobil has been able to bring its technology, execution capability, and financial strength to bear. The realization of this major step forward in LNG efficiency will be especially important in providing a source of new energy for the United Kingdom,” Tillerson said.

The Qatargas project will involve the construction of two of the largest LNG liquefaction trains in the world (Trains 4 and 5). The two new trains will be installed alongside the three trains of the Qatar Liquefied Gas Company or Qatargas I and therefore will benefit from the existing infrastructure in the Qatargas I plant.

A dedicated receiving terminal is currently being constructed at Milford Haven, West Wales in the UK. A fleet of 16 state-of-the-art LNG carriers will be constructed to transport the LNG to the UK terminal. These carriers will be 40 to 70 per cent larger than conventional LNG ships, providing additional project economies-of-scale.

The Milford Haven Terminal will be owned and operated by South Hook LNG Terminal, a UK company owned jointly by Qatar Terminal Company (70 per cent), and ExxonMobil Qatargas II Terminal Company (30 per cent). South Hook LNG Terminal will manage the terminal operations.

Top Qatargas II officials pointed out that the record $7.6bn in financing for the project was raised from 57 different institutions, including Islamic financial institutions.

In December 2004, Qatargas II entered into agreements to secure $6.5bn in debt while South Hook LNG Terminal secured $1.1bn.

In signing the $6.0bn Qatargas IV project with the Chief Executive of Shell, Jeroen van der Veer, Al Attiyah said that he was very pleased “to see Shell enter the LNG industry in Qatar and further contribute to the diversification of LNG markets.”

Meanwhile, van der Veer said: This signing of the Qatargas IV HOA further demonstrates the strong partnership that Shell is building with Qatar to deliver ambitious projects such as this and the Pearl GTL project which is progressing well.”

“These projects are fully aligned with Shell’s strategy of ‘more upstream and profitable downstream’ through the development of integrated natural gas projects. “The Qatargas IV project will combine Shell’s global leadership in LNG with Qatar’s vision to become the world’s largest LNG supplier. Upon completion, Qatargas IV will broaden Shell’s LNG supply portfolio to include projects in seven countries, and will provide additional supplies for the growing LNG markets in North America and Europe,” he said.
BP receives assurances from Indonesia to start Tangguh LNG project

Jakarta — BP, the world’s second biggest oil firm by market value, is to go ahead with a key Indonesian natural gas project after securing government assurances that it would receive extensions to operate the three vital gas fields for the Tangguh project, Dow Jones Newswires and the BBC reported last month.

Senior Vice President of BP’s Tangguh liquefied natural gas (LNG) project, Lukman Mahfoedz, confirmed that the Indonesian government had approved the extension of a license giving BP access to the gas fields necessary for its long-planned Tangguh LNG project.

BP had been asking the government to extend the contracts for the Wiriagar Block, due to expire in 2023, the Muturi Block (expiry 2027), and the Berau Block (expiry 2017), which have combined gas reserves of 14.4 trillion cubic feet, and will feed into the project at Tangguh.

It was vital that BP received the extensions of the gas field contracts because the company had signed supply deals with China, Mexico and South Korea that ran until 2035.

Specifically, BP last year signed a deal to sell between 600,000 and 800,000 tonnes per year of LNG for 20 years to South Korea’s K-Power from the Tangguh project.

Tangguh would also supply 550,000 t/y of LNG to South Korea’s largest steelmaker, Posco, and 2.6m t/y to the Fujian LNG receiving terminal project in China.

The Tangguh project would also supply about 3.7m t/y of LNG to Sempra Energy (SRE) of the US.

Production, which will be based in Tangguh, about 1,880 miles east of Jakarta, is set to start in 2008.

Construction on the Tangguh project, which will feature as the centrepiece of BP’s Asia-Pacific gas operations, is set to start in the near future, according to the company.

The total cost of the project is estimated at close to $5.0 billion and it should provide LNG equal to about six per cent of total global demand.

BP has already awarded contracts
worth about $2.0bn to foreign firms for the project, including a group led by US oil services company Kellogg, Brown and Root (KBR), and Italy’s Saipem.

KBR, which is owned by Halliburton, will build the liquefaction plant, jetties and other infrastructure needed to export the gas.

Saipem, a unit of Italian oil company, Eni, will build offshore installations such as gas platforms and pipelines.

Liquefying natural gas allows it to be transported by tanker or ship, accessing markets that cannot be reached by pipelines.

Gas sales account for about 40 per cent of BP’s total revenues.

PDVSA, Shell agree to new JVs to develop Mariscal Sucre LNG

Caracas — PDVSA and Shell announced plans to negotiate new joint venture agreements in the country, including a timeline to progress on the Mariscal Sucre project, according to a statement released by Venezuela’s national oil company, PDVSA, last month.

At a meeting held in Caracas between the Venezuelan Minister of Energy and Mines, Rafael Ramírez, and the Executive Director of Shell, Linda Cook (pictured below), the two parties confirmed their commitment to progress with the development of the Mariscal Sucre LNG Project. They also talked about increasing production from Lake Maracaibo and the development of Faja heavy oil in the Orinoco Belt.

Venezuela’s long awaited Mariscal Sucre LNG project, designed to launch Venezuela as an exporter of LNG, is partnered by PDVSA (60 per cent), Shell (30 per cent), Mitsubishi (eight per cent), with two per cent coming from Venezuelan investors.

According to the Energy Intelligence Agency (EIA), the proposed start-up date of the Mariscal Sucre project is sometime in 2008, but industry observers are doubtful that this will be realized.

The project has been on the drawing board in one form or another for almost 20 years, with the hold-up reportedly being attributed to differences between PDVSA and Shell in negotiating the terms and conditions of contracts.

Despite this, Shell’s Executive Director emphasized in the meeting the company’s long-term commitment to Venezuela and reinforced Shell’s willingness to work with the Venezuelan government and PDVSA on oil and gas developments within the framework of the country’s energy policy objectives.

“Shell has been a pioneer in the Venezuelan oil industry, having drilled the initial commercial wells in the Lake Maracaibo area. We are eager to expand our activities in the country, including the realization of Mariscal Sucre LNG and other oil and gas projects,” Cook said.

“With the parallel social investment programmes that Shell will undertake, we believe these projects can contribute to the sustainable long-term economic development of Venezuela and further strengthen its energy supply capability,” she added.

Ramírez stated the willingness by the Ministry and PDVSA to develop further its business opportunities with Shell, and particularly to develop the heavy crude Orinoco Belt reserves.

He also reaffirmed Venezuela’s intention to progress with the Mariscal Sucre Project for the development of the offshore North Paria gas fields together with Shell.

To that end Ramírez and Cook agreed to the early conclusion of negotiations to enable investment to begin on the Mariscal Sucre project.

They also expressed their willingness to create a new joint venture for exploration and production projects in Lake Maracaibo, aimed at the development of the Urdaneta North Field.

Shell is already successfully operating the Urdaneta West Field. Shell and PDVSA are also considering a joint venture for heavy oil production in the Faja region using world leading technology developed by Shell.

“Joint committees are being formed (between the two companies) to negotiate the final agreements before the end of 2005,” the PDVSA statement said.

The government of Venezuela also recently invited Brazil’s Petrobras to enter the Mariscal Sucre project. It is not clear if the Brazilian giant would enter as a new
In brief

Output starts at Central Azeri in Caspian Sea

LONDON — The Azerbaijan International Operating Company (AIOC), operated by BP, announced the start-up of oil production from the Central Azeri development, which is part of the Azeri-Chirag-Gunashli (ACG) field, in the Azerbaijan sector of the Caspian Sea. Located in approximately 128 metres of water, 100 kilometres east of Baku, Central Azeri production began from the first of ten pre-drilled production wells in February. Production will increase through 2005 as the other pre-drilled wells are brought online, prior to further platform drilling over the coming years. Total production from Central Azeri is forecast to be some 35 million barrels in 2005 (equivalent to an average of 93,000 b/d).

Shell, Petronas sign PSCs offshore Sabah

LONDON — Two Shell Malaysia exploration and production companies, Sabah Shell Petroleum and Shell Sabah Selatan and a subsidiary of Malaysia’s Petronas, Petronas Carigali, signed two new Production Sharing Contracts (PSCs) in February with Malaysia’s national oil company, for deepwater blocks ND6 and ND7, offshore East Sabah. Both blocks are located in waters of up to 4,000 metres in depth in the South China Sea. Under the terms, Shell Malaysia and Petronas Carigali will jointly operate the blocks, each with a 50 per cent equity stake. The contracts envisage an exploration programme comprising additional seismic acquisitions, followed by exploration drilling during one or more exploration periods spanning at least seven years. Successful exploration in the designated acreages will lead to follow-up drilling and deepwater development, allowing Shell to further draw on its experience.

ConPhil reports reserve replacement

HOUSTON — ConocoPhillips announced last month its preliminary net additions of 1.246 billion barrels of oil equivalent (boe), including equity affiliates, to its proven reserve base during 2004. The company’s reserve replacement ratio was 206 per cent, based on production of 605 million boe, bringing ConocoPhillips’ total reserve base to 8.5bn boe, excluding 0.3bn b associated with the company’s Canadian syncrude operations. The US Securities and Exchange Commission regulations define the company’s syncrude operations as mining related, therefore, these operations are not reported as part of its conventional oil and gas proven reserves base. Total reserve additions, including revisions, improved recovery, purchases, and extensions and discoveries, were 1.286bn boe. Excluding sales and acquisitions, ConocoPhillips’ reserve replacement ratio was 65 per cent. partner or whether it would replace one of the current members. Last year, the government also invited Qatar to participate.

In a related development, Ramírez, announced that the terms of the Mariscal Sucre Liquefied Natural Gas Project were being fine-tuned to differentiate the processes that will be developed in this potential area, north of the Paria Peninsula. “We are going to carefully differentiate between the Gaseous Hydrocarbons Constitutional Law and the Hydrocarbons Constitutional Law, since there are some gas areas where the Gas Law would apply, while there are other areas, with large liquid concentrations, where the Hydrocarbon Law would apply,” he said.

Ramírez explained that the Mariscal Sucre Project would be divided into two important areas. “We are going to execute one project upstream and another downstream,” he said, indicating that the latter will liquefy and process gas. The Hydrocarbons Law establishes an Estate’s minimal participation of 51 per cent in crude exploration and extraction and a royalty rate of 30 per cent, while the Gaseous Hydrocarbons Law allows private parties to have up to 100 per cent participation and royalty rates of up to 20 per cent.

Santos discovery in Indonesia’s Kutei Basin

Adelaide — The Australian based energy company, Santos, said last month that it was encouraged by an oil and gas discovery at the Hiu Aman 1 well in the Donggala Production Sharing Contract area (PSC) in the Kutei Basin, offshore Indonesia, drilled by operator, Unocal Donggala. The well reached a total depth of 4,039 metres in 14 days. Interpretation of the logging while drilling and wireline logs, including MDT pressures and samples run in the lower part of the well, has resulted in a preliminary net pay of approximately 25 metres, the company said in a statement. Santos said that the initial analysis indicated that most of the pay was gas. Hiu Aman 1 is Santos’ first well in the Donggala PSC of a planned three-well drilling programme in the block. Following the completion of wireline logging, the well will be plugged and abandoned, as per the programme, and the rig will be released to drill the next three wells in the Santos Kutei Basin drilling programme. Santos’ Managing Director, John

NEWSLINE
Ellice-Flint, said at the time of the announcement that the Kutei Basin was a prolific hydrocarbon province and that the discovery was located seaward of the West Seno field, Indonesia’s first deepwater producing oil field.

“This is frontier exploration acreage and the results of Hiu Aman 1 are very encouraging as they indicate an active petroleum system in the trend,” he said.

“We hope the next wells will confirm the early indication that the proven, prolific petroleum system active in the Basin’s shallow water extends into the deep water trend.

“While it is early days, and the significance of the discovery won’t be confirmed until further appraisal, the initial signs are positive,” he noted.

Ellice-Flint added that Santos had a large acreage position in the Kutei Basin, having embarked on a programme to build a high-impact portfolio with the potential to open up frontier opportunities.

“Hiu Aman 1 confirms that this strategy is on track,” he said.

The Donggala PSC covers an area of 3,821 square kilometres and is located in the north-eastern Kutei Basin, offshore East Kalimantan in water depths ranging from 1,650 to 2,450m.

The Donggala PSC lies between the Popodi and Papalang PSGs — in each of which Santos has a 20 per cent, non-operating interest.

Subject to the approval of the Indonesian regulatory authority, BPMIGAS, Santos will take up a total equity interest of 65.45 per cent in the Donggala PSC, and subject to further agreements with the existing PSC participants, the company plans to farm out 15.45 per cent of its new equity interest.

Santos will become operator of the Donggala PSC after December 2005.

**Exploration to start on Block 1 Nigeria and São Tomé and Príncipe JDZ**

_Lagos_ — ChevronTexaco announced last month that it had signed a production sharing contract (PSC) with the Nigeria-São Tomé and Príncipe Joint Development Authority (JDA) on Block 1 in the Joint Development Zone (JDZ).

The block, which will be operated by ChevronTexaco, was awarded in April 2004 following the major’s successful $123 million bid. The PSC is expected to come into legal effect once remaining outstanding conditions have been met.

Managing Director of ChevronTexaco’s Nigeria/Mid-Africa upstream business unit, Jay Pryor, said the company was “very pleased to have reached this milestone”.

“The governments of Nigeria and São Tomé and Príncipe deserve much recognition for their leadership and foresight in establishing the JDZ which has led to this first PSC signing. We are looking forward to working with our co-venturers, ExxonMobil and Dangote Energy Equity Resources, and the JDA in launching exploration activities in the block as soon as possible,” he said.

Pryor also praised the governments of Nigeria and São Tomé and Príncipe for their commitment to transparency and accountability.

“The PSC provides for the public disclosure of payments made under the contract, in keeping with the transparent manner in which the bid round was conducted,” he said.

“We commend the governments of Nigeria and São Tomé and Príncipe for embracing these values and indicating their resolve and commitment to ensure a successful realization of a new standard of accountability. ChevronTexaco fully supports these efforts to ensure openness and public accountability in the development of oil and gas activities in the JDZ.”

Pryor further noted that, as part of the company’s commitment to local communities, ChevronTexaco was collaborating with the São Tomé and Príncipe government on a project designed to roll back malaria, and would also help develop programmes to enhance HIV/AIDS prevention and awareness among the country’s teenagers.

Block 1 is located approximately 300 kilometres north of the city of São Tomé in 1,800 metres of water.

The consortium members are ChevronTexaco JDZ (51 per cent); Esso Exploration and Production Nigeria-São Tomé One (40 per cent) and Dangote Energy Equity Resources (nine per cent), which is a joint venture between the Dangote Group of Nigeria and Energy Equity Resources of Norway.

In brief

**ExxonMobil makes reserve additions**

_IRVING_ — ExxonMobil announced last month that additions to its worldwide proven oil and gas reserves totalled 1.8 billion oil equivalent barrels in 2004, excluding the effects of using single-day, year-end pricing. The company replaced 112 per cent of production including property sales, and 125 per cent excluding property sales. ExxonMobil Chairman, Lee Raymond said: “This represents the eleventh consecutive year of greater than 100 per cent reserve replacement, demonstrating the outstanding capability of our upstream organization and the corporation’s commitment to long-term growth. He said taking account of the company’s growing participation in the development of liquefied natural gas (LNG) from Qatar’s North Field with Qatar Petroleum, proven reserve additions in Qatar totalled 1.7bn oil equivalent barrels. “ExxonMobil’s commitment of capital to this growing LNG business, which is underpinned by our confidence in the demand for gas and the liquidity of our targeted gas markets, has been the subject of several press announcements during 2004,” he added.

**Chevron unveils first hydrogen station**

_CHINO, CALIFORNIA_ — ChevronTexaco Technology Ventures, CTTV, a subsidiary of ChevronTexaco, unveiled its first hydrogen energy station at the Hyundai-Kia America Technical Centre in California, the company reported last month. The project is part of a programme initiated by the US Department of Energy (DOE). The hydrogen energy station which is located in Chino, California, is part of a five year DOE cost-sharing programme designed to demonstrate safe, practical hydrogen technologies in real world settings. CTTV is leading the project in collaboration with Hyundai Motor Company and UTC Fuel Cells. ChevronTexaco’s Vice President and Chief Technology Officer, Donald Paul, commented on the project: “The Chevron hydrogen energy station is a glimpse into the future of distributed energy with hydrogen production on site to fuel a small fleet of Hyundai’s Tucson fuel cell demonstration vehicles powered by UTC Fuel Cells.” Meanwhile, the DOE Assistant Secretary for Energy Efficiency and Renewable Energy, David K Garman, said that such projects were very important to extend knowledge on hydrogen, providing critical data to help ensure that future research was focused on the most important barriers to the development of the fuel. “We will demonstrate and measure technology progress towards the goal of hydrogen fuel at costs competitive with gasoline and fuel cell vehicles with the affordability and reliability of today’s cars,” Garman added.
In brief

**Petronas exports first LNG from Egypt**

Cairo — Malaysia’s Petronas, together with its partners BG and the Egyptian General Petroleum Corporation, EGPC, have successfully delivered their first liquefied natural gas (LNG) cargo to Asean LNG Trading Company, ALTCO, a subsidiary of Petronas from Egypt’s Damietta LNG Complex. The delivery is the first cargo under a five-year sale and purchase agreement signed with ALTCO and BG Gas Marketing, BGGM. Under the agreement, ALTCO and BGGM will load on a 50/50 basis, comprising 1.45 million tonnes of LNG annually from the Damietta LNG complex in Egypt, owned by the Spanish Egyptian Gas Company, SEGAS. The cargo is among the first batch of LNG shipments from Egypt and marks the product’s first export by Petronas and its partners from the country.

**Petro-Canada builds on oil sands**

Calgary — Petro-Canada announced recently that it had entered into an agreement to become a partner in the Fort Hills Oil Sands Mining Project, currently owned by UTS Energy. Under the terms of the agreement, Petro-Canada will assume a 60 per cent interest and become the operator of the project. UTS will own the other 40 per cent. To pay for its stake, Petro-Canada will fund 75 per cent of UTS’ share of the next $1.0 billion of development capital, or $300 million. The company said the decision to acquire a stake in the project was very much a part of Petro-Canada’s strategy to expand its operations, and capitalize on its experience in oil sands.

**ONGC makes significant gas discovery**

New Delhi — ONGC has made a significant gas discovery in its ongoing “Sagar Samridhii” deepwater exploration campaign at location VA-1A in block KG-OS-DW-IV in the Krishna-Godavari Basin. The block is located 30 kilometres from the Amalapuram coast and about 75 km from the port of Kakinada. ONGC is the operator of the block, with a 100 per cent stake. The well was spudded early this year in 553 metres of water, and has been completed to the target depth of 2,449 m. Multiple levels of gas-bearing sands have been identified between the depths of 1,962 m and 2,182 m, with an estimated pay thickness of 42 m, over an area of nine square kilometres. The presence of gas has been confirmed through log evaluation and wire-line testing, while conventional testing is in progress. The newly discovered field will be brought into production through the integrated development with nearby fields.

Gulfsands, Iraq sign gas MOU to stop flaring in Misan

**Houston** — Gulfsands Petroleum said in a statement last month that it had signed a memorandum of understanding with the Ministry of Oil in Baghdad for the Misan gas project, which is expected to produce natural gas that would be used to generate much needed electricity for Iraq.

In what is believed to be the first large infrastructure project undertaken by private international investment in Iraq since the end of the conflict in May 2003, the Houston-based Gulfsands Petroleum plans to gather, process and transmit associated natural gas from producing wells in southern Iraq in a bid to end gas flaring.

The three producing fields in Misan are Buzurgan, Jabal Fauqi and Abu Gharab — all located close to the border with Iran.

Gulfsands said Misan has the potential to produce up to 46,600 b/d of natural gas liquids (NGLs) and 338 cubic feet per day of dry, sweet natural gas.

Gulfsands and the Iraqi Ministry of Oil have completed a feasibility study on the project, and the company expects to conduct further technical work and commercial discussions with the Ministry by the end of June.

The project will involve the engineering, design, procurement, construction, and operation of a gas gathering system, an NGL plant, and transmission pipelines which will be built in two phases — the first phase is expected to take approximately three years and the second phase an additional two years.

The project is a private initiative that is not part of any US-funded contracts in Iraq.

Gulfsands has announced its plan to list on the Alternative Investment Market in London to raise $47 million to pursue development operations in Iraq, as well as in the Gulf of Mexico.

Gulfsands has been conducting business development activities in Iraq since 2003, when the company and Oklahoma-based Devon Energy acquired Block 26.

The company has formed a subsidiary for its operations in Iraq, registered a branch of the company with the Iraqi government, and has opened an office in Baghdad.

**Inauguration of Qatar’s Al-Shaheen facility promises boost in output**

Doha — Qatar Petroleum (QP) and Denmark’s Maersk Oil Qatar have drawn up plans to expand crude production from the offshore Al-Shaheen oil field by 210,000 b/d to 450,000 b/d by 2008/09. Qatar’s Second Deputy Prime Minister and Minister of Energy and Industry, Abdullah bin Hamad Al Attiyah, said at the inauguration of the new Al-Shaheen offshore facilities last month.

Al-Attiyah said that crude production would be increased from its current rate of 240,000 b/d through a $3.0bn investment programme that would nearly double reserves and output.

He said that this milestone was one of the many tangible results of the excellent co-operation between QP and Maersk Oil Qatar to enhance Qatar’s oil and gas production and contribute significantly to the development of the country. In 1992, Qatar and Maersk Oil Qatar entered into an Exploration and Production Sharing Agreement covering the exploration and development of block 5, offshore Qatar.

In April 2004, the agreement was modified to include the extension area north of block 5. Production from the Al-Shaheen field located in block 5 commenced in 1994.

Since then Maersk Oil Qatar and QP have completed a number of major development phases using Maersk Oil’s state of the art technology, including the Danish company’s horizontal well technology with wells drilled up to 31,000 feet in length.

Fourteen world record horizontal wells have been drilled by Maersk Oil Qatar, the latest in May 2004. Today, a total of 18 permanent platforms are in place at six production locations interconnected with pipelines and power cables. 131 production and water injection wells are in operation and 26 exploration and appraisal wells have been completed by Maersk Oil Qatar in block 5 and the block 5 extension area.
Occidental signs Libyan agreements

Los Angeles — Occidental Petroleum announced that the company and its partners have signed contract agreements with Libya’s National Oil Company for nine exploration blocks awarded in the EPSA-4 oil and gas licensing round in January. Preliminary work on the blocks, which encompass an area in excess of 77,000 square kilometres, is already underway. Occidental Chairman, President and Chief Executive Officer, Ray Irani, commented on the development: “With the signing of these agreements, Occidental is leading the return of US oil and gas companies to Libya after an absence of nearly two decades.” Occidental is the operator and holds a 90 per cent exploration working interest in onshore blocks 106 and 124 in the Sirte Basin, blocks 131 and 163 in the Murzuk Basin and block 59 in the Cyrenaica Basin. Liwa Energy, owned by the Government of the Emirate of Abu Dhabi, holds the remaining 10 per cent interest.

ExxonMobil, Apache to optimize US E&P

Houston — ExxonMobil and Apache recently announced a programme that will capitalize on the respective strengths and assets of both companies to optimize hydrocarbon exploration and development in the United States and Canada. The agreement provides for transfers and joint venture activity across a broad range of prospective and mature properties in West Texas, Western Canada, onshore Louisiana and the Gulf of Mexico Continental Shelf, and is expected to increase the realized value of the portfolio for both companies. The parties will work together to close the various transactions with more definitive agreements. ExxonMobil and Devon said that the move would allow both companies to create more shareholder value from mature producing properties and large undeveloped acreage, giving them access to new deep gas prospects.

BP wins solar contract in Zambia

London — One hundred and twenty one community-based organizations and nine schools in rural areas of Zambia will soon be getting BP solar panels to generate electricity for lighting, radio, television and refrigeration. The panels will be supplied by Apex-BP Solar, a subsidiary of BP France, which has been awarded a contract through its distributor, Electrical Maintenance Lusaka, EML, by the Zambia Social Investment Fund. Apex-BP Solar will supply the solar panels, EML will deliver and install the panels and also train their users in various schools and health centres in Zambia. The project will produce a peak power of almost 250 kilowatts.

New Delhi — India and Venezuela signed an agreement early in March that clears the way for India’s major energy companies to invest in offshore oil and gas blocks in the Latin American country’s waters, the Indian Minister of Oil, Mani Shankar Aiyar, said recently. The signing came during a state visit to India by Venezuela’s President, Hugo Chávez, in what is the first-ever visit by a Venezuelan President.

Bloomberg reported that India’s state-run Oil and Natural Gas Corporation, ONGC, and GAIL Ltd, formerly known as the Gas Authority of India, were the companies earmarked as eligible to bid for exploration and production rights in Venezuela.

Chávez said on his arrival in India that he also hoped to strike a long-term oil supply deal with the country.

He was on a four-day state visit to India where he signed energy and co-operation agreements.

“We want to supply petroleum in a permanent way (to India), the same as we do with the US,” Chávez said during a forum with Indian business leaders.

India’s oil needs have been increasing in recent years amid an economic boom and it is seeking new suppliers.

India, the third largest crude oil consumer in Asia, imports 70 per cent of its oil, mostly from the Middle East.

But to reduce its exposure to possible volatility in the Middle East, India is looking to diversify its oil supplies. It is also seeking to boost local production.

Meanwhile, Venezuela, the world’s fifth largest oil producer, is trying to diversify its exports and reduce its dependence on the US market.

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Venezuela’s PDVSA is already advising ONGC on the extraction of oil in the country’s north-western state of Rajasthan.

Indian oil companies may bid for Venezuelan oil blocks

New Delhi — India and Venezuela signed an agreement early in March that clears the way for India’s major energy companies to invest in offshore oil and gas blocks in the Latin American country’s waters, the Indian Minister of Oil, Mani Shankar Aiyar, said recently. The signing came during a state visit to India by Venezuela’s President, Hugo Chávez, in what is the first-ever visit by a Venezuelan President.

Bloomberg reported that India’s state-run Oil and Natural Gas Corporation, ONGC, and GAIL Ltd, formerly known as the Gas Authority of India, were the companies earmarked as eligible to bid for exploration and production rights in Venezuela.

Chávez said on his arrival in India that he also hoped to strike a long-term oil supply deal with the country.

He was on a four-day state visit to India where he signed energy and co-operation agreements.

“We want to supply petroleum in a permanent way (to India), the same as we do with the US,” Chávez said during a forum with Indian business leaders.

India’s oil needs have been increasing in recent years amid an economic boom and it is seeking new suppliers.

India, the third largest crude oil consumer in Asia, imports 70 per cent of its oil, mostly from the Middle East.

But to reduce its exposure to possible volatility in the Middle East, India is looking to diversify its oil supplies. It is also seeking to boost local production.

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MEMBER COUNTRY FOCUS

Eastern Province Saudis go to the polls

A Shia prepares to vote in the Kingdom’s unprecedented nationwide local elections in Qatif, Saudi Arabia.
Riyadh — Men in southern Saudi Arabia and the largely Shia-populated Eastern Province have turned out in their thousands to vote in municipal elections, the BBC reported early in March.

Some voters queued from dawn in the second round of the country's landmark elections, the first such elections in 40 years.

“We're overjoyed,” Hasan Khater said, after taking a picture of his three brothers in front of a polling station.

Voting is taking place in three rounds — Riyadh, the Eastern Province and the south-west have voted, with the remaining western regions of Mecca and Medina, as well as the northern regions due to go to the polls on April 21.

Only half the members of the local councils will be elected, while the rest will be appointed.

The Eastern Province is where most of the Kingdom's Shia minority lives.

They are hoping the election, though a limited exercise in democracy, will not be a wasted opportunity and will help give them an increased voice within the country.

The Shia have long complained that they are excluded from most local and national government posts, and they also say they face restrictions on building their mosques and performing their religious rites.

They have been watching Shia Muslims in neighbouring Iraq assert their political power and that has raised hopes that they too could seek greater rights.

Sheikh Mohammad al-Taieb said outside a polling centre in Qatif, where all five seats are expected to go to Shia candidates, that he hoped that in the future Saudi citizens would be able to vote in parliamentary elections.

“Shias have been marginalised for years ... now Shias are starting to get their voice heard ... in this good country,” al-Taieb told Agence France-Press (AFP).

In the Shia parts of the Eastern Province, voter registration has been high and the campaign has unfolded in a festive atmosphere.

Meanwhile, the voting which took place in Riyadh a month earlier also went well, the Saudi Press Agency reported the Elections Monitoring Committee as saying.

In a press conference following the closure of voting in Riyadh, the Chairman of the Elections Monitoring Commission, Bandar bin Mohammed Alhajjar, said that the monitoring panel, consisting of several independent parties drawn from human rights, media and legal observers within the country, noted that there were no irregularities in voting.

The outcome of the vote in Riyadh has shown a strong standing for Islamist-backed candidates who have taken a lead, according to preliminary results.

In Riyadh, 650 candidates have been fighting for just seven seats.

According to official figures quoted by AFP, over 70 per cent of registered voters turned out in the capital.
Saudi Ministry plans to employ women

Riyadh — Women will be employed in Saudi Arabia’s Foreign Ministry for the first time this year, the Kingdom’s Foreign Minister, Prince Saud Al-Faisal, has been reported as saying, according to a report by the BBC last month.

The move comes as the Ministry of Labour plans to employ as many as 200,000 women in the Kingdom’s labour force over the next six months.

This was in response to a request made last year to government departments by Crown Prince Abdullah, the de-facto ruler of the Kingdom, to put plans in place for employing women.

But progress has been slow, reports from the country say.

The Middle-East’s leading English daily, Arab News, reported at the time that the Minister of Labour, Ghazi al-Gosaibi, had “caused uproar” when he said his Ministry was having difficulty hiring women because they demanded segregated offices.

The newspaper said many Saudi Arabian women found his explanation “a pitiful excuse for not employing women.”

Women now make up more than half of all graduates from Saudi universities but only five per cent of the workforce.

“Our educational reforms have created a new generation of highly-educated and professionally trained Saudi women who are acquiring their rightful position in Saudi society,” Arab News quoted Prince Saud as saying.

“I am proud to mention here that this year we shall have women working in the Ministry of Foreign Affairs for the first time,” the Prince said.
Dubai — The Emirate of Dubai in the United Arab Emirates (UAE), has unveiled plans for the largest waterfront development in the world, the BBC and Gulf News reported last month.

The vast project, located 35 kilometres south-west of Dubai, bordering Abu Dhabi, will reshape the Emirate by adding 850 km of new coastline dotted with luxury homes and hotels. The project will take up the last remaining coastal waterfront in Dubai.

Aiming to be the world’s largest waterfront offering, the Dubai waterfront project will feature ten ‘districts or diversified zones’ and be a base for 250 master-planned communities, where up to 750,000 people will reside. There will be room for around 150 hotel plots.

The development will house one of the world’s tallest skyscrapers and encompass an area nearly three times the size of Washington DC.

The first phase is expected to be finished in about five years. The Dubai waterfront will be split between land and sea and include a new city centre.

It will include a 75 km desert canal and an arc of man-made islands sweeping deep into the Gulf.

Dubai’s Crown Prince, Sheikh Mohammed bin Rashid Al Maktoum, said the planned project would become the world’s largest waterfront development.

Foreign firms have been allowed to invest in the project for the first time after the UAE lifted restrictions on outside partnerships.

Nakheel, the state-run firm behind the development, has not disclosed the cost of project, but local experts say it will run into tens of billions of dollars.

The Emirate has already started extending its 60 km coastline with a man-made archipelago hosting luxury homes and hotels. The unfinished islands are said to be visible from space.
“It might not be long before we put on the table our final proposal and give them a deadline to either accept or reject it,” Naseri added. “We are not far away from this stage.”

Iran has continuously insisted that its nuclear programme is aimed at peaceful power generation, but the EU and the United States fear otherwise, saying that the Islamic Republic may be seeking to develop atomic weapons.

The EU says Iran has a right to use nuclear power, but wants it to scrap plans to produce its own reactor fuel.

While numerous rounds of talks with the EU have taken place, Iran has frozen all nuclear fuel work, like uranium enrichment, which is a process of purifying uranium to fuel atomic power plants.

However, it has rejected as insignificant a joint US-EU offer to allow it to start entry talks to the World Trade Organization and purchase previously embargoed civilian aircraft spare parts in return for giving up its nuclear fuel work for good.

On its part, Iran has offered a compromise plan that would allow the country to maintain a small enrichment programme to be closely watched by the United Nations International Atomic Energy Agency (IAEA), diplomats in Vienna said at a meeting held early in March over the issue.

They said Iran asked to be able to keep a cascade of some 500 centrifuges — too small a number for serious arms-related enrichment — while the uranium would be enriched so that it contained no more than 3.5 per cent of the uranium-235 atom.

Bomb-grade uranium needs to be around 90 per cent U-235.

Diplomats close to the Director General of the IAEA, Mohamed ElBaradei, say there is support for such a compromise plan.

But it seems both Brussels and Washington are not warming to the compromise plan.

Head of non-proliferation at the Carnegie Endowment for International Peace, Joe Cirincione, a US think-tank, said it would be unacceptable to the Europeans and the Americans.

“In the capitals, this is being ruled out,” he said. “You can’t be a little bit pregnant, is the idea.”

A European diplomat, speaking on the condition of anonymity, confirmed this view.

“Now we are linked to the US and this would not be acceptable,” he said, adding that enrichment know-how was not something the EU wanted Iran to cultivate.

Iran said it could provide “objective guarantees” that it would not use its nuclear technology to build bombs.

Talks between the EU and Iran were to continue in Geneva ahead of a crucial meeting in Paris on March 22 or 23 to decide whether the negotiations will continue.

“What is clear to me is that we are walking on a knife’s edge,” Naseri said.

“There is no guarantee that we will reach an agreement.”
Russia, Iran sign nuclear deal

*Tehran* — Russia and Iran signed an agreement recently for Moscow to supply fuel to Iran’s new nuclear reactor in Bushehr, the *BBC* reported.

Under the deal Iran has to return spent nuclear fuel rods from the reactor, which was designed and built by Russia.

The clause is a safeguard meant to banish fears that Iran might misuse the rods to build nuclear weapons, a concern of the US, Israel and others.

The agreement sets out a timeframe for delivery of the fuel, but officials said the dates would be kept secret.

The BBC’s Frances Harrison in Tehran said the deal was significant because Bushehr would be Iran’s first reactor to go on stream — a project that has become an issue of national prestige in the face of intense US opposition.

The signing of the deal was initially delayed over disagreements about when the spent fuel should be returned.

Russia had been insisting that no spent fuel should be diverted for the manufacture of weapons.

Iran has repeatedly said its nuclear programme is solely for the generation of power.

Nigeria expands AIDS drugs help

*Abuja* — Nigeria plans a drastic increase in the number of people living with HIV and AIDS that receive anti-retroviral drugs, the Minister Health, Eyitayo Lambo, said last month in a story filed by the *BBC*.

Currently 14,000 Nigerians get subsided drugs, but this year the number will rise to 100,000, Lambo said.

Nigeria, Africa’s most populous nation, began providing anti-retrovirals in 2002, through 25 treatment centres.

But they still only meet the needs of a small fraction of the estimated four million HIV-positive Nigerians.

Lambo said he hoped the increased provision would be partly funded by the UN’s Global Fund and the World Health Organization (WHO).

“Council decided that we should scale up the treatment ... to 100,000 HIV-positive patients this year,” Lambo said.

Under the programme, the state subsidises the cost of generic versions of the drugs, made in India, reducing the monthly cost of treatment to about $7 per patient.

Lambo said that by 2007 Nigeria hopes to have 350,000 people on the programme.

Last year the country unveiled its first plant to manufacture affordable generic anti-retroviral drugs, built with funds from Nigerian expats living in the US.
Work underway on new airport project — Qatar

Doha — The site preparation and land reclamation work for the multi-billion dollar New Doha International Airport (NDIA) is underway with extensive work being undertaken on a waste dump area, the Middle East North America Financial Network (MENAFN) reported last month.

The Chairman of the Civil Aviation Authority and Chairman of NDIA, Abdul Aziz Mohammed Al Nuaimi, along with a member of the Central Municipal Council, Sheikha Al Jufiri, toured the site recently to get acquainted with the progress of the work. NDIA Project Director, David M Stewart, as well as Construction Manager, Bill Smith, and Design Manager, Omran Assa, both from Overseas Bechtel Incorporated, accompanied him.

In January 2004, the NDIA Steering Committee awarded a contract to the US engineering firm Bechtel to design, construct and project manage the over $5.0 billion new airport which will be one of the most environmentally friendly.

The new airport will be managed by Qatar Airways, and will be the world’s first to be designed and built specifically for Airbus’s new A380-800 double-decker ‘super jumbo’ — the largest passenger aircraft ever built.

The A380 will be capable of carrying more than 550 passengers, with Qatar Airways being a launch customer due to take delivery of the first of its four A380s in 2009, the year the new airport is set to open.

The airport will be constructed four kilometres from the existing facility, on a 5,400-acre site. It is being constructed in response to a projected demand for additional international passenger capacity to the region.

The current airport handles 4.2 million passengers per year, whereas the new airport will be able to handle 12.5m per year after the first phase of construction. The first phase will cost $2.5 billion, while phases two and three are projected to cost an additional $5.0bn.

The airport is being constructed near the city of Doha and, when finished, it will be approximately two-thirds the size of the city. It is being built for the Qatar Civil Aviation Authority (QCAA).

During the construction process, the old airport is being expanded and refurbished at a cost of $140m. This is to increase its capacity to 7.2m passengers per year for the interim period before the new airport takes over.

Bechel’s Bill Smith told reporters touring the site that the work at the site of the future runway involves the transport of the non-engineered waste from the two million square meters area into a fully engineered waste reception area built at Mesaieed.

“The dump is not suitable to use as refill and has to be totally replaced. We built a special area in Mesaieed to dispose the waste in an environmentally safe way,” he said.

A total of 150 trucks have been deployed to transport waste six times a day from the area to the specially prepared area in Mesaieed. All the clean up of the area is expected to be completed by next October.

One of the project’s key features is that 40 per cent of the site will be built on reclaimed land from the Gulf.

As for the land reclamation, over 30,000 cubic metres of fill from the ocean is dumped inside the new airport area daily.
To date, an area totalling 500,000 cu m has been filled since work started in mid-January and an area of 62m cu m is yet to be developed.

A total of six dredging ships will be deployed.

Last month the government awarded the contract for the dredging and reclamation works of the project to a consortium of four dredging companies.

The dredging and reclamation contract worth QR1.53bn is by far the largest to be tendered.

The work is due to be completed within 24 months.

Kuwaiti parliament to speed up debate of women’s rights bill

Kuwait City — The Kuwaiti parliament agreed to a government request to speed up moves to look into a bill that would grant women the vote, but did not set a date for the proposed debate, Agence France-Presse (AFP) reported last month.

The decision came amid noisy street rallies by women activists, who were also permitted to watch the debate.

But the public gallery was cleared after some activists applauded a speech by one MP in support of their cause.

The cabinet has already approved a bill allowing women to vote and stand in elections, but it has been delayed in parliament by the strong Islamist bloc.

The government will arrange with the committee to set a date for the debate, the State Minister for Cabinet Affairs, Mohammad Daifallah Sharar, told parliament during the session, which heard arguments from both supporters and opponents of the draft legislation.

More than 400 people, mostly women but also including a number of male liberal sympathizers, demonstrated outside parliament during the session.

“I know that the majority (of MPs) will back women’s rights,” Kuwait’s Prime Minister, Sheikh Sabah Al-Ahmed Al-Jabir Al-Sabah, told parliament.

Ten lawmakers agreed to withdraw a motion to refer the election law to the constitutional court in a bid to grant women their political rights, saying they would give parliament a chance to debate the bill.

On the eve of the meeting, the Islamic bloc, which comprises 13 Sunni Muslim MPs, said it would oppose the government request to set a date for debating the bill as the “women’s rights issue is not a priority for a majority of the Kuwaiti people”.

The bill, approved by the cabinet last May, amends Article One of the 1962 electoral law that limits participation to male citizens to bring it in line with the constitution, which stipulates gender equality.

A women’s rights bill put forward by Kuwait’s Emir, Sheikh Jaber Al-Ahmed Al-Sabah, was narrowly defeated in parliament in November 1999 by an alliance of Islamist and tribal forces.

Unless the electoral law is amended, only 15 per cent of the 950,000 citizens would be eligible to vote for the 50-seat house in Kuwait’s next legislative elections set for July 2007.

There has been domestic and international pressure on Kuwait to broaden political rights since its independence was restored after the 1991 Gulf War.
The Director-General of the OPEC Fund, Suleiman Jasir Al-Herbish, delivered an address to the 41st Munich Conference on Security Policy — Peace through Dialogue. The annual gathering of the world’s top defence and national security officials carry out frank debates on the major issues of war and peace.

Fostering peace through development and energy security: two noble missions
Let me begin by thanking the Conference Head, Professor Dr Horst Teltschik, and colleagues for inviting me to participate in this 41st Munich Conference on Security Policy. Yesterday, at the Broader MENA Conference, I spoke about the role of the OPEC Fund for International Development in assisting developing countries, including countries in the MENA region, in pursuit of their social and economic advancement. Today, I would like to expand on the complementary roles of the OPEC Fund and the Organization of the Petroleum Exporting Countries (OPEC) in helping preserve world peace through the enhancement of social progress and economic development.

Allow me to clarify the respective mandates of these two institutions, and their noble missions. Although the OPEC Fund and OPEC are both based in Vienna, Austria, and serve the complementary objectives of their shared membership, they are two quite independent organizations, both legally and financially. They report to different ministers, and are endowed with their own separate headquarters and management.
Established in 1960, OPEC’s mandate is to support international macro-economic stability by ensuring secure world oil supplies. Its principal objectives are to co-ordinate and unify the petroleum policies of Member Countries and to determine the best means of safeguarding their individual and collective interests, while giving due regard to the need to secure an efficient, economic and regular supply of petroleum to consuming nations. OPEC also seeks to ensure the stabilization of prices in international oil markets with a view to eliminating harmful and unnecessary fluctuations.

The mission of the OPEC Fund is to help maintain world peace and security through development co-operation. In establishing the institution in 1976, our Member Countries collectively decided to voluntarily allocate part of their revenues from oil — a finite, exhaustible resource on which they remain heavily dependent — to assist international development through the OPEC Fund. This decision was not based on considerations of charity, but rather on the firm and shared conviction that development co-operation is essential to the preservation of world peace and security, and thus, to the benefit of the world at large. By the end of 2004, our Member Countries had made available a cumulative total of $7.4 billion in official development assistance (ODA) through the OPEC Fund, in addition to the financial assistance they made available through various other bilateral and multilateral channels.

Our mandate at the Fund is to reinforce financial co-operation between OPEC Member Countries and other developing countries, and to promote South-South solidarity. The aim is to not only help alleviate hardship among the poor, but also to ensure that those who have been marginalized from the mainstream of the world economy are looked after and prevented from becoming further disenfranchised. Thus, the Fund particularly helps the poorer, low-income countries in pursuit of their social and economic advancement.

The strategy chosen is to help poor countries and people fulfil their basic needs by making available public and private sector loans. More than 60 per cent of our cumulative public sector lending has been dedicated to infrastructure, one third of which has been committed to helping meet the energy needs of the poor. The Fund also provides grants for technical assistance, research, and emergency and humanitarian aid, most recently in support of the victims of the devastating tsunami that hit south Asia late December 2004. Our preferred method is to work in partnership and co-financing with other development financing institutions, sister institutions, and relevant stakeholders in development. OPEC Fund Member Countries are not eligible for our assistance, except in emergency cases.

With three billion people, or half the world’s population, surviving on less than two dollars a day, the Fund’s mission to help maintain peace through development is more relevant than ever. As you may be aware, the volume of ODA available to help poor countries reach the Millennium Development Goals by 2015 is only about half the $100bn that is needed every year. International efforts are ongoing to bridge the financing gap. At this year’s annual meeting of the World Economic Forum in Davos, Switzerland, world leaders were urged to take responsibility for tough choices. Proposals were made to mobilize additional financial resources for development through voluntary taxation. OPEC Fund Member Countries made these tough choices several decades ago with their collective decision to voluntarily make available a stable and predictable flow of financing for development, despite themselves being developing countries, with many challenges to face at home.

In this rapidly changing and increasingly interconnected and interdependent world, peace and security, including energy security, are matters of global concern, as evidenced by the presence of so many high-ranking members of the international security community here today. International organized crime, terrorism, violent conflict and the rapid spread of epidemic diseases have shown the negative side-effect of globalization. This has fuelled a sense of human insecurity, enhancing an international consensus that there can be no peace in our global village without a more inclusive and cohesive world order.

Access to reliable and affordable energy services is a key ingredient in the pursuit of the social and economic advancement of both industrialized and developing nations. In the aftermath of the tragic events of September 11, 2001, energy security again tops the agenda of policy makers, with renewed fears about scarcity and security of supplies.
OPEC has ensured the security of energy supplies for over 40 years and with it, global macro-economic stability and world peace, with some Member Countries making up for production losses incurred by others in case of crisis or war. The Organization stands firm in its commitment to maintain a stable international oil market, as evidenced by the unprecedented efforts underway in OPEC Member Countries — particularly in the Gulf — to increase investment in oil production capacity, and to ensure that adequate spare capacity is available for the benefit of the world at large.

Oil and gas are expected to account for two-thirds of global energy consumption by 2020. Oil demand increased by more than 75 per cent, from 47 million b/d in 1970 to 83m b/d this year. Demand is forecast to rise further, by around 30 per cent or 1.5 per cent annually for the next two decades, and to reach 111m b/d by 2025. Similarly, demand for gas is projected to grow by 2.9 per cent annually, to 30 per cent of global energy consumption by 2025. About 80 per cent of the incremental increase in oil demand will be in the developing countries, which will account for 46 per cent of world oil consumption by 2025, a quarter of which will be in China.

As a seat for almost 70 per cent of the world’s proven oil reserves and 40 per cent of total proven world gas reserves, the Middle East, home to the majority of OPEC Member Countries, will have to meet almost two-thirds of the projected increase in world demand. Of a projected world oil trade of 67m b/d by 2025, the Middle East will account for about half. This region’s importance is also expected to increase, as far as the natural gas trade is concerned.

A cumulative total of some $500bn will be needed over the next 25 years to maintain and increase the oil supply capacities of the Middle East — an area of low-cost production. This amount is not substantial, when compared with expected Middle East oil revenues, and thus not considered as particularly demanding, provided that oil prices are not so low that they deprive the industry of the financial resources required for adequate investment. Although national oil companies are making the necessary investments to bring production levels up to standard, part of the financing will have to come in the form of foreign direct investment which, in turn, requires a peaceful and stable enabling environment in FDI home countries.

All commodities witnessed a sharp increase in price in 2004. For oil, in nominal terms, the OPEC daily basket price reached record highs in 2004. In real terms, however, prices are some 50 per cent lower than they were in early 1980s: in today’s dollar terms, they are at the same level of late 1973, and below what they were in 1979, namely $80–$100/b. Prices moderated again in the fourth quarter, averaging $36/b in December 2004. A combination of factors contributed to the price volatility, which occurred despite sufficient supplies and sound market fundamentals. These include unusual and unexpected high demand, in particular from China, compounded by low global inventory levels, refining bottlenecks, and strained supply infrastructure in major consuming regions, war and geopolitical tensions, and speculative activity in the paper markets.

OPEC has done its best to ensure adequate supplies during this unusual year, thanks to continued investment in oil supply capacity, including spare capacity, which has fallen to around five per cent of total OPEC capacity, following the decision by OPEC to increase production by a total of 3.5m b/d in 2004. Nevertheless, other pressures, such as speculation and downstream bottlenecks, are likely to continue keeping prices high in the near future. In the longer term, these pressures need to be addressed in a broader co-operative approach.

Enhancing energy security does not only require better technologies and more investment in production capacity. It also requires greater international co-operation and dialogue on energy policies and its geopolitical dimensions.

In 2002, the International Energy Forum (IEF) was established to promote a continuous dialogue and understanding between oil and gas producers and consumers on energy-related issues and perceptions affecting the world community in order to reduce supply and demand volatility, and enhance market stability and transparency. The permanent Secretariat of the IEF is located in Riyadh, Saudi Arabia.

I realize that the interrelated issues of peace through development co-operation, energy security, and market stability lend itself to many questions, which I shall be happy to take during the discussions.
The OPEC Fund for International Development approved an emergency assistance grant of $200,000 to help purchase relief supplies for victims of the earthquake that struck southeast Iran late in February.

The epicentre of the early morning quake, which measured 6.4 on the Richter scale, was located in the town of Zarand, about 700 kilometres south-east of Tehran. Five cities and around 40 villages in Kerman Province were devastated, claiming over 550 lives and leaving more than 1,500 injured and over 7,000 families homeless.

The stricken region is just 240km from Bam, the site of the December 2003 earthquake that killed 26,000 people and levelled the historic city.

Rescue and relief efforts, co-ordinated by the Red Crescent Society of the Islamic Republic of Iran (IRCS), were faced with bad weather conditions and rough, mountainous terrain.

Some villages were inaccessible by road during parts of the day, and helicopters had trouble reaching areas because of the bad weather.

The Managing Director of Kerman Province’s Red Crescent Society, Mehdi Abna, told the Islamic Republic News Agency (IRNA) that more than 50 relief teams from the IRCS of Kerman Province were dispatched to the quake-hit region immediately after the incident.

He said the priority of the Red Crescent was to move people to nearby towns and cities in the Province, and to provide the thousands of survivors with shelter, protection, food and water.

A government plane, he said, was due to arrive carrying relief supplies of tents, blankets, stretchers and bread.

The OPEC Fund’s contribution to the aid effort went towards procuring essential supplies and finance emergency operations undertaken by the IRCS.
to earthquake victims in Iran

Above: An Iranian woman whose home has been destroyed and family killed cries in the village of Dahouyeh.

Far left: Iranian villagers stand on a hillside in the ruins of the village of Dahouyeh in south-east Iran.

Left: Iranian children paint at a Red Crescent camp for local children near Dahouyeh.
January

This section is based on the OPEC Monthly Oil Market Report published in mid-February by the Research Division of the Secretariat, containing up-to-date analysis, additional information, graphs and tables. The publication may be downloaded in PDF format from our Web site (www.opec.org), provided OPEC is credited as the source for any usage.

Crude oil price movements

OPEC Reference Basket

The OPEC Reference Basket1 began the New Year on a bullish note amid frigid weather in the Northern hemisphere. The market remained firm on escalating unrest in Iraq and the perception that OPEC might rein in already reduced output as crude oil inventories saw a hefty draw. Hence, the Basket’s weekly average was up $1.08 or 3.3 per cent to close at $36.90/barrel on January 6. In the second week of the month, supply fears continued on a potential strike in Venezuela amid falling US natural gas stocks. Persistent supply outages along with a lasting cold snap in the northern hemisphere and a further crude oil stock draw in the USA sustained market strength as the Basket surged to almost $40/b, a level last seen on November 4. The Basket closed the week ending January 13 with a rally of over eight per cent after surging nearly $3 to $39.88/b. The third week saw the bullish trend continuing on fears of continuing attacks on Iraq’s oil infrastructure ahead of the election. The Basket peaked on January 18 at $41.97/b, before retreating on a surprise build in the US crude oil stocks. The Basket closed the week ending January 20 at $41.42/b for a rally of $1.54 or nearly four per cent. The final week of the month saw further price pressures due to a strike threat in Nigeria, the looming election in Iraq and uncertainty about OPEC’s production outlook (see Table A).

However, the perception that the quota would remain unchanged prevented the price from rallying further. Nevertheless, the Basket’s weekly average rose $1.25 or three per cent to close at $42.67/b after seeing another daily peak of $43.10/b on January 26. The upward price movement was due to hefty draws on winter fuel and gasoline stocks, despite a build in crude oil stocks. In the final two days of the month, a growing expectation that OPEC output would remain unchanged caused the Basket to tumble by a hefty five per cent or $2.06/b to end the month at $40.95/b.

The Basket’s monthly average for January was up $4.53 or nearly 13 per cent above the previous month to close at $40.24/b. Following an eighth per cent rally in December, the Basket stood $4.19/b above the 2004 average and a hefty $9.91/b, or 33 per cent above the same period last year. Most of the rise was seen in the second week of January amid a persistent cold snap in the northern hemisphere, while the OPEC decision to keep output unchanged helped to moderate prices in the final days of the month. Nevertheless, the Basket slipped in February on continued OPEC output and fading winter demand. The Basket closed at $39.94/b on February 9 for a month-to-date average of $40.36/b on weakening sentiment due to crude oil stock levels and OPEC production.

US market

The US domestic crude market began the year on a firm footing. Continued sabotage on oil facilities in Iraq reduced the country’s crude exports in December to 1.16 million b/d, the lowest for any month in 2004. This helped widened crude grade differentials amid the return of buying interest from the year-end holiday season. The bullish sentiment strengthened on delays in the Houston Channel due to fog and a hefty draw on crude oil stocks while refinery runs were boosted to 95 per cent. WTI surged two per cent or nearly one dollar for the week closing January 6 to average $43.73/b, while the sweet/sour spread for WTI/WTS narrowed 80¢ to stand at $3.79/b. In the second week of the month, Iraq’s northern exports saw

1. An average of Saharan Blend, Minas, Bonny Light, Arabian Light, Dubai, Tia Juana Light and Isthmus.
continuous interruptions which helped to boost West African flat prices.

A smattering of refinery turnarounds amid continued outages from the North Sea supported further price strength. A second week of hefty draws on US commercial crude oil inventories, for a cumulative drop of some 6.3 m b, supported the price rally, while a build in distillates stocks kept alive some bearish sentiments. WTI surged $2.34 or five per cent for the week to stand at an average of $46.07/b. The sweet/sour spread widened 40¢ to $4.19/b. Frigid weather in the US northeast exerted upward pressure on the petroleum complex in the third week of the month. WTI gained nearly four per cent rising almost $2 to close the week at $47.90/b. However, widespread US refinery turnarounds weighed on the sour crude market as the sweet/sour spread widened $1.51 to $5.70/b amid revised US petroleum stocks exhibiting comfortable builds in crude oil and distillate inventories.

The upward price movement was sustained in the final week of January amid continued frigid temperatures in the northeastern USA. WTI edged up a healthy 96¢ to close the week ending January 27 at $48.86/b, a level last seen on November 25. While another build in crude oil stocks supported an easing of the price in the physical market, a hefty draw on gasoline and distillate stocks including heating oil supported the wide sweet/sour spread. The WTI/WTS differential stood at $5.83/b down from a January 27 peak of $6.49/b. This boosted the differential in January to a monthly average of $4.88/b, an increase of 69¢ over the previous month. However, this was far lower than the $5.87/b average seen in November or the $7.08/b peak in October. The WTI price reached a monthly average of $46.64/b in January, an increase of $3.52 or well over eight per cent.

**European market**

In Europe, North Sea grades held firm as bad weather forced refiniers to load onshore grades, which supported strong differentials. Sustained outages boosted outright prices as well, as dated Brent surged four per cent in the first week ending January 6 to close at $40.67/b. Healthy differentials persisted in the second week amid a regional outage of some 411,000 b/d and rising flat prices.

However, refining margins came under pressure as high crude prices outpaced those for refined products. In the week ending January 13, dated Brent surged nearly nine per cent. Moreover, falling inter-sea freight rates helped terminal grades, eroding differentials in the third week of the month. The return of Norwegian oil fields from a long disruption amid pitiful refining margins added bearishness to the marketplace. Although talks over some arbitrage opportunities ignited hope that differentials might improve, ample supplies kept markets under pressure throughout the third week.

The market remained stagnant as refiners remained on the sidelines amid high absolute prices and weakening refining margins. However, refining margins got a boost at month’s end with the fall in outright prices. Moreover, a drop in freight rates encouraged arbitrage activities. Dated Brent averaged $44.01/b in January, an increase of $4.58 or 12 per cent over the previous month.

In the Mediterranean market, ample Middle Eastern sour grades exerted further pressure on differentials with sweet margins outstripping sours by more than a dollar. Urals stagnated further in the first week as poor margins deterred buying and many players were away from the market due to the Orthodox Christmas holiday. Bearishness lingered into the second week of the month on weak refining margins for sour grades amid the emergence of new product specifications which boosted trade for the more lucrative sweet crudes. Outages

| Table A: Monthly average spot quotations for OPEC’s Reference Basket and selected crudes including differentials |
|-------------|--------|--------|--------|--------|
|             | Dec   | Jan   | 2003   | 2004   |
| Reference Basket | 35.70 | 40.24 | 30.33  | 40.24  |
| Arabian Light    | 34.64 | 38.26 | 29.83  | 38.26  |
| Dubai            | 34.16 | 37.78 | 28.93  | 37.78  |
| Bonny Light      | 39.08 | 44.01 | 30.94  | 44.01  |
| Saharan Blend    | 39.61 | 44.39 | 31.29  | 44.39  |
| Minas            | 34.76 | 42.55 | 30.27  | 42.55  |
| Tia Juana Light  | 32.36 | 35.75 | 29.28  | 35.75  |
| Isthmus          | 35.31 | 38.89 | 31.78  | 38.89  |
| Other crudes     |
| Brent           | 39.43 | 44.01 | 31.33  | 44.01  |
| WTI             | 43.12 | 46.64 | 34.33  | 46.64  |
| Differentials   |
| WTI/Brent       | 3.69  | 2.63  | 3.00   | 2.63   |
| Brent/Dubai     | 5.27  | 6.23  | 2.40   | 6.23   |

March 2005
Far East market

The Middle Eastern sour market saw a healthy start as some Mideast official selling prices (OSP) were seen to be reasonable. March Oman was assessed at M0G plus 2–9¢/b, rising to a plus 8–15¢/b premium later in the first week. In contrast, kerosene-rich Abu Dhabi Murban for March loading traded at a 35–50¢/b discount on low demand. Oman continued to attract double-digit premium due to lower allocations from the Middle East with March-loading barrels seeing a 30¢/b premium to the OSP. In the second week, a cold snap in the North Eastern hemisphere supported the differential in Asia amid a draw on Japanese kerosene stocks and unseasonably strong demand for jet fuel. Oman continued to attract the largest premium amid the perception that spot differentials were about to come under pressure throughout the month.

However, a comfortable kerosene stock level in Japan limited any improvement in the differential. Emerging demand from Asian buyers supported low-sulphur Oman which was assessed at a 35¢/b premium, while a cold snap in Japan boosted Murban’s assessment to a 10¢/b premium. April Oman dipped lower, assessed at a 12¢/b premium amid the perception that spot differentials were about to come under pressure from rebounding freight rates and the OPEC decision not to cut output.

Asian market

On the Asian front, sweet crudes from both West Africa and the Asia Pacific recovered on lower outright prices and freight rates in the first week, attracting more interest from Asian refiners. February-loading Tapis started the month at 45¢/b to the Asian Petroleum Price Index (APPI) quote compared to a $2/b discount for January barrels. Moreover, in the second week, Malaysian’s Petronas slashed its Tapis crude price adjustment factor ‘p’ for January loadings to a discount of $1.40/b from a 5¢/b premium in December, which supported trade for the regional crudes amid uneconomical arbitrage opportunities.

Indonesia’s February Cinta crude traded at a premium of $1.70/b to Indonesian Crude Pricing (ICP). Improved demand in Asia amid a draw on Japanese kerosene stocks supported the sweet/sour differential in the third week with Tapis selling at $1/b to the APPI, while March barrels were on offer at a higher $1.60/b later in the month. Meanwhile, Indonesia’s March Widuri and Cinta were assessed at $1.80/b to the ICP quotes.

Product markets and refinery operations

A combination of cold weather across the globe, unplanned refinery maintenance and unseasonably strong demand for gasoline in the USA has produced support for light and medium product prices in January 2005. The situation reversed the downward trend in refining margins in the USA and slowed the pace of the fall in other parts of the world, particularly in Asia. In January, refining margins in the USA increased by 27 per cent compared

Table B: Selected refined product prices

<table>
<thead>
<tr>
<th></th>
<th>Nov</th>
<th>Dec</th>
<th>Jan 05</th>
<th>Change Jan/Dec</th>
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<tbody>
<tr>
<td>US Gulf (cargoes)</td>
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</tr>
<tr>
<td>Naphtha</td>
<td>52.19</td>
<td>42.74</td>
<td>50.86</td>
<td>8.12</td>
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<tr>
<td>Premium gasoline</td>
<td>(unleaded 93)</td>
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<td>43.86</td>
<td>52.58</td>
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<td>51.52</td>
<td>56.12</td>
<td>4.60</td>
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<tr>
<td>Gasoil</td>
<td>(0.2% S)</td>
<td>55.61</td>
<td>50.04</td>
<td>53.34</td>
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<tr>
<td>Fuel oil</td>
<td>(1.0% S)</td>
<td>31.19</td>
<td>24.89</td>
<td>31.33</td>
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<td>(3.0% S)</td>
<td>21.80</td>
<td>22.32</td>
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<tr>
<td>Rotterdam (barges fob)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Naphtha</td>
<td>56.49</td>
<td>50.20</td>
<td>51.32</td>
<td>1.12</td>
</tr>
<tr>
<td>Premium gasoline</td>
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<td>(unleaded)</td>
<td>50.64</td>
<td>42.42</td>
<td>47.72</td>
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<tr>
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<td>55.05</td>
<td>1.00</td>
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<td>51.92</td>
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<td>24.96</td>
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<tr>
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<td>(3.5% S)</td>
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<td>20.93</td>
<td>23.54</td>
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<tr>
<td>Mediterranean (cargoes)</td>
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<tr>
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<td>45.68</td>
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<td>45.72</td>
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<tr>
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<td>52.75</td>
<td>1.98</td>
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<td>Gasoil</td>
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<tr>
<td>Fuel oil</td>
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<td>25.65</td>
<td>28.69</td>
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<td>(3.5% S)</td>
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<td>18.62</td>
<td>21.80</td>
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<tr>
<td>Singapore (cargoes)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naphtha</td>
<td>47.46</td>
<td>42.79</td>
<td>41.34</td>
<td>–1.45</td>
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<tr>
<td>Premium gasoline</td>
<td>(unleaded 95)</td>
<td>52.45</td>
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<tr>
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<td>(unleaded 92)</td>
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<td>46.87</td>
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<tr>
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<td>26.93</td>
<td>28.08</td>
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<tr>
<td>Fuel oil</td>
<td>(380 cst 3.5% S)</td>
<td>27.99</td>
<td>24.00</td>
<td>26.61</td>
</tr>
</tbody>
</table>
to the previous month, while dropping by 66 per cent and 17 per cent in Europe and Singapore, respectively. However, more recently, the expectation of mild weather along with relatively comfortable stock levels has eased the earlier gains in the product markets, but specification changes in several parts of the world and reduced supplies during winter/spring maintenance will keep prices and the crack spreads of premium products relatively strong in the near future.

In January, the refining utilization rate in the USA decreased from 96 per cent in the previous month to 91.6 per cent due to planned and unplanned refinery maintenance, and it may decline further over the next two months. In Europe, despite falling margins, the refinery utilization rate improved a marginal 0.5 per cent compared to 89.4 per cent in the previous month. In Asia, Japanese refiners also cut throughputs and trimmed their utilization rates to 91.6 per cent from 92.4 per cent in December (see Table B).

**US market**

The blast of cold weather, together with refinery and pipeline problems, raised product prices across the barrel, particularly for gasoline, which had dropped sharply in the last month of 2004. In January, cracking units at the ConocoPhillips 250,000 b/d alliance refinery in Louisiana and Sunoco’s 330,000 b/d Philadelphia refinery were shut down for unplanned maintenance. Apart from refinery problems, unseasonably strong demand for gasoline has also strengthened the US gasoline market and prompted many traders to export about 2.5 million tonnes of gasoline from Europe to the US market.

According to the US Energy Information Administration (EIA), over the four-week period to February 9, gasoline demand in the USA increased by three per cent compared to the same time last year. Similarly, the distillate market has rebounded due to a cold spell in the US north-east, but failed to boost prices sharply, as many market players have switched their attention from heating oil to gasoline, and the expectation of mild weather over the next weeks has also undermined the bullishness of the distillate market (see Table B).

Despite the good performance of the top and the middle of the barrel in the US market in January, the performance of the bottom of the barrel was steady, while rising utility plant demand did little to change bearish sentiment for low-sulphur and high-sulphur fuel oil. The forecast for warm weather may put further pressure on the US fuel oil crack spread.

**European market**

Light and middle distillate product prices soared in January on a number of factors such as cold weather, arbitrage opportunities to the USA and the Middle East, and demand from North Africa and the eastern Mediterranean. Despite this rise, they were still unable to overtake their corresponding crude oil cost, thus extending the earlier downward trend in European refining margins.

During the same month, the gasoline crack spread jumped from $1/b to around $5/b, before dipping recently due to declining arbitrage opportunities to the other side of the Atlantic market. Meanwhile, the European market for naphtha remains bearish and is unlikely to change in the near future, as petrochemical plants in northwest Europe and the Mediterranean area are using cheaper alternative feedstocks like LPG, and arbitrage opportunities to Asia and the USA are closed as well (see Table B).

Middle distillate prices, which had been dropping since the beginning of November due to the mild weather and ample supply at the expense of lower gasoline production, also reversed their downward trend in the middle of January, as cold weather in the northern hemisphere supported an increase in the distillate price. The forecast for mild weather in the near future could help to erode this support.

The European market for low-sulphur fuel oil remained steady, as increased consumption by utility plants was counterbalanced by continued ample supply. However, the high-sulphur fuel oil market remains bearish and may come under further pressure due to higher exports from Russia.

**Asian market**

Rising Indian and Indonesian demand for gasoline and gasoil reversed the bearish sentiment in the Asian market for light and middle distillate products that was triggered in December due to ample supplies and lower imports by China. Indonesia has bought 4.4m b of gasoline for January and 4.84m b for February. This volume
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is about 30 per cent higher than the one which was imported in the same month last year. Despite strong demand for gasoline, the market for naphtha appears lacklustre, as China's growing demand has yet to outpace ample supplies from India and the Middle East.

With respect to middle distillates, a cold spell in north Asia coupled with Indian demand for low-sulphur gasoil capped the sharp downward price movement which began last month. Expectations of further diesel imports by China over the next month for farming have also helped to keep the distillate crack healthy.

The Asian fuel oil market was more bearish, as plenty of arbitrage cargoes along with sluggish Chinese demand widened the discount for high sulphur fuel oil to its corresponding Dubai crude to around minus $12/b. Fuel oil product losses even outstripped the gains made in light products, resulting in a 17 per cent drop in Asian refining margins in January from the previous month (see Table B).

The oil futures market

Futures crude oil prices in January rebounded from a slow start following a cold snap in the US north-east region. NYMEX WTI saw volatile movement. The forecast for warmer weather in the USA pushed the market one way while fears of a supply shortfall amid escalating violence in Iraq and a hefty draw on the US natural gas underground storages pulled in the other. The Commodity Futures Trading Commission (CFTC) report for January showed non-commercials had increased longs by twice as much as shorts. Nymex WTI closed the first week in the New Year at $45.43/b or 4.5 per cent higher. Fuel oil product losses even outstripped the gains made in light products, resulting in a 17 per cent drop in Asian refining margins in January from the previous month (see Table B).

futures had edged up 15¢ on two contrasting factors. Rising crude oil stocks caused the futures contract to slip three per cent while heating oil concerns pushed the new prompt month up by nearly three per cent in a contango market. The CFTC report for the week ending January 18 showed non-commercial holdings had doubled net long positions by nearly 16,000 lots while open interest peaked near 720,000, the highest level since the 735,000 seen on October 12, 2004. In the final week of January, NYMEX WTI futures peaked at nearly $50/b on fears of a supply shortfall amid sustained frigid weather in the US north-east. The March futures contract, however, closed the week down $1.35 or three per cent at $47.18/b amid an OPEC decision to keep output unchanged. The CFTC report for the week ending January 25 revealed that non-commercials had doubled net longs for the second consecutive week to 34,000 lots, mostly due to a liquidation of short positions, although longs also saw a hefty increase. Nonetheless, open interest remained at a healthy level of 714,000 lots, well above the 661,260 lots seen in the same period last year. On the last day of January, despite a smooth election in Iraq, NYMEX WTI rebounded by two per cent to close at $48.20/b on speculation that OPEC might rein in oil production in the months ahead.

The forward curve for the NYMEX futures contract remained in contango over the course of January, although at a narrower spread. Despite a hefty draw on crude oil stocks of some 6.3m b in the first two weeks, the relatively higher inventory level of 293m b, compared to 270m b in the same period last year, kept the market in contango. Also, last year, the forward curve was well backwardecd by 65¢/b. The continued build of crude oil stocks in the USA in the final two weeks for a cumulative increase of 6.8m b to 295m b kept the contango in place and extending to the third and fourth month. The January monthly average for the first/second month was in contango at minus 20¢/b compared to minus 30¢/b in December.

Tanker markets

OPEC area spot fixtures fell sharply to 13.7m b/d during the first half of January from an average of 21.4m b/d in the third week of December. However, as the month drew to a close, spot fixtures surged, pushing the monthly average for January to 16m b/d, up 2.1m b/d or 13 per cent compared to the previous month, but consistent with last year's level.

The huge decline in the first half of January was triggered by OPEC's decision to cut production by 1m b/d effective January 1. OPEC's share of global spot chartering remained at the December 2004 level of 67 per cent, but was up two percentage points from the previous year's figure. Even though most of the OPEC production cut came from the Middle East, spot fixtures from this region increased by around 2.5m b/d, with a gain of 1.9m b/d on eastbound and 600,000 b/d on westbound routes. By increasing spot fixtures, Middle Eastern eastbound and westbound routes boosted their shares in OPEC's total spot fixtures to 54 per cent from 44 per cent in December.

Non-OPEC spot fixtures increased by 900,000 b/d to around 8m b/d, which is 750,000 b/d less than in January 2004. The increase in both OPEC and non-OPEC fixtures led to a total spot chartering of nearly 24m b/d in January, the second-highest level in the last seven months. According to preliminary estimates, sailings from the OPEC area declined by 270,000 b/d to 24.3m b/d from the peak of 25m b/d reached in December. Most of the decline — 650,000 b/d — came out of sailings from the Middle East, which confirms the significant fall in spot fixtures from this region in December. Arrivals in the US Gulf and East Coasts and the Caribbean showed an increase of 720,000 b/d to reach around 12m b/d confirming a surge in US imports. Arrivals in North-West Europe and the Euro-Mediterranean region experienced the same trend, soaring 870,000 b/d and 150,000 b/d, respectively, which reversed the drops observed in December. However, arrivals in Japan increased a slight 100,000 b/d to 4.43m b/d.

Spot freight rates continued to slide for the second consecutive month as a result of large tonnage availability in combination with OPEC's decision to cut output by 1m b/d effective January 1. The slowdown of crude prices put more pressure on freight rates by making oil buyers and charterers reluctant to book in anticipation of
lower oil prices and shipping rates, which resulted in considerable losses. In the very large crude carrier (VLCC) sector, freight rates on the Middle East eastbound and westbound long-haul routes plummeted to monthly averages of around Worldscale 70, the lowest levels in more than 14 months. The drop was more significant for cargoes heading to the east which faced a substantial fall of 161 points or more than two-thirds compared to the previous month, while rates on the westbound route fell 77 points or more than half.

Compared to the same month last year, freight rates on both routes were down 45 per cent. Due to increasing tonnage build-up, the Suezmax sector experienced the same trend, especially the route from NW Europe to the US East Coast, which saw freight rates falling by 125 points or 45 per cent to settle at a monthly average of W155, over 100 points less than last year’s figure. Freight rates on the West Africa/US Gulf Coast route declined by 51 points to stand at W178, compared to an average of W264 in January 2004. Freight rates for the Aframax sector faced the same situation as freight rates more than halfed on the Indonesia/US West Coast route to stand at an average of W159 in January 2004. Freight rates for the Aframax sector faced the same situation as freight rates more than halved on the Mediterranean region and from there to NW Europe, they lost between 40 per cent and 44 per cent to stand at monthly averages of W259 and W209, respectively.

In the Mediterranean region, some of the fall was attributed to smaller transit delays in the Turkish Straits. In addition, the approaching refinery maintenance season exerted downward pressure on freight rates. Freight rates on the Caribbean/US East Coast route, which fell to an average of W353, observed the relatively smallest decline of 11 per cent compared to other routes, remained 25 points above last year’s figure. This moderate drop was due to a balanced and quiet market. However, it is worth noting that spot freight rates started to improve at the end of the month and most rates doubled on a sudden surge in activity.

For the East and the Singapore to the East routes, freight rates fell significantly within the Mediterranean region and from there to NW Europe, with drops of 167 points and 61 points, respectively, to stand at W297 and W290 in January as a result of less activity due to weak demand. Freight rates on the NW Europe to the US East and Gulf Coasts routes fell slightly to W345. However, freight rates for cargoes heading from the Middle East and Singapore to the East remained almost stable at W359, but were up 152 and 142 points, respectively compared to last year’s figure, due to strong Asian-Pacific demand for gasoline, kerosene and low-sulphur fuel. Freight rates on the Caribbean/US Gulf Coast route decreased slightly by seven per cent or 24 points to average W333, the same level as last year’s figure.

**World oil demand**

**Forecast for 2004**

**World**

With the data only partially incomplete for December, world oil demand for 2004 is estimated to have grown by 3.21 per cent or 2.55m b/d to average 82.05m b/d. While there were minor downward revisions to the data for the first three quarters, the absolute 4Q figure was revised up by 300,000 b/d.

The lion’s share of the upward revision to 4Q data took place in China where demand was underestimated by 290,000 b/d in the last report. According to the latest preliminary data coming from China, the country’s apparent demand stood at 6.7m b/d which implies a y-o-y growth of almost 20 per cent or more than 1m b/d. The strong 4Q apparent consumption figure points to a significant rebound in Chinese demand, following the decline seen in 3Q2004, when demand growth fell to 10.5 per cent y-o-y.

Western Europe’s demand also underwent a considerable 4Q upward revision of 150,000 b/d. In contrast, demand in North America, OECD Pacific and the Middle East was adjusted downwards. On a regional basis, non-OECD countries accounted for almost three-quarters of total world oil demand growth, with China alone responsible for 950,000 b/d or more than 37 per cent of total world oil demand growth. OECD countries, which accounted for more than 60 per cent of total world oil demand at the end of 2004, contributed 26 per cent of the additional demand. Oil consumption grew at an annual rate of 1.38 per cent or 670,000 b/d to average 49.53m b/d.

**OECD**

Preliminary data for December from the three OECD sub-groups indicates a mixed picture. While demand for petroleum products grew in North America and Western Europe, OECD Pacific countries continued to show further contractions. In the USA and Canada, demand for gasoline and distillates was robust in December. The latest figures released by the US Department of Energy point to continued strong gasoline demand in early February, while distillate consumption came out weaker. The uptrend of diesel and gasoil consumption was evident in Europe during December, while gasoline and fuel oil consumption were weaker. In the OECD Pacific countries, demand showed signs of weakness in almost all major product categories. Warm weather in Japan and South Korea has cut consumption of kerosene and gasoil, while the partial recovery in nuclear power generation in Japan resulted in a further decline in fuel oil demand.

The split of total OECD oil requirements by products for the period January-November 2004 shows that inland deliveries of gasoil/diesel, LPG and gasoline grew by 230,000 b/d, 150,000 b/d and 110,000 b/d, respectively, compared to the same period of last year. In contrast, residual fuel oil requirements continued to decline by more than 5.5 per cent or 170,000 b/d during the eleven-month period. Fuel oil consumption was hit hardest in Japan where consumption shrank by 11.6 per cent during the period, while the rate of contraction in Europe was slightly lower at 7.4 per cent. Residual fuel oil consumption in the USA stood at 1.6 per cent to finally end in positive territory following contractions in the previous two years.

**Developing countries**

Oil demand in developing countries is estimated to have grown by 800,000 b/d or four per cent to average 21.28m b/d for the year 2004. Almost 50 per cent of the growth will take place in ‘Other Asia’, underpinned by healthy consumption in India. The latest figures indicate that India’s demand for oil and petroleum products rose considerably during the first half of 2004, with 6.8 per cent growth in 1Q and 10.4
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per cent in 2Q before decelerating to two per cent and one per cent for 3Q and 4Q. The income effect arising from record-high oil prices, solid rates of economic growth — now estimated at 6.44 per cent — and heavily subsidized energy prices in the Middle East have underpinned consumption of petroleum products, which grew by an estimated 240,000 b/d or 4.75 per cent to reach 5.3m b/d. In the other two regions, oil demand is projected to rise at a more moderate pace with Latin America showing 3.07 per cent growth and Africa adding around two per cent.

Other regions

With ten full months of preliminary data at hand, apparent demand for 2004 in the ‘Other regions’ group has been further revised upwards to average 11.23m b/d with a growth rate of 10.5 per cent and a volumetric increase of 1.07m b/d. The bulk of the revision originates in China where preliminary production and trade figures indicate that apparent demand had risen nearly 20 per cent during the last quarter of 2004 compared to the 12.4 per cent estimated in the last report.

The strong rebound in Chinese apparent consumption following a decline to 10.5 per cent during 3Q2004 is the result of an impressive 44 per cent increase in China’s net oil imports during the last three months of last year. However, it is important to bear in mind that these are preliminary figures and estimates which may be subject to further revisions. Latest GDP figures seem to indicate that administrative and monetary government measures implemented throughout 2004, which were designed to slow the rate of economic expansion, did not have the intended effect and the GDP figure for 2004 has been revised up to 9.5 per cent from last month’s 9.3 per cent. Apparent consumption in the FSU is estimated to rise 90,000 b/d or 2.27 per cent, while Other Europe’s growth will be slightly higher than three per cent for the year.

Forecast for 2005

The forecast for world oil demand for the present year has been revised upwards in line with projections for stronger world GDP growth. According to the latest figures, the world’s economy is now expected to grow by 4.21 per cent, which represents a 0.09 per cent upward revision from the previous estimate of 4.12 per cent. Thus, average world oil demand is projected at 83.78m b/d, implying a gain of 2.11 per cent or 1.73m b/d over total 2004 consumption.

Oil consumption is expected to grow in all major regions, with the sole exception of OECD Pacific where demand will contract by around one per cent or 100,000 b/d. North America’s demand for oil and petroleum products is projected to grow by slightly more than one per cent which translates into a rise of 260,000 b/d — less than half of the growth seen in 2004 — in light of the considerably lower pace of economic growth anticipated for the region of 3.37 per cent in 2005 down from 4.25 per cent in 2004.

Western Europe’s demand growth has been revised up to 80,000 b/d or 0.52 per cent based on the more optimistic outlook for economic expansion in the region. It is important to mention that the ratios of oil consumption to economic expansions for both regions are below the historical average; therefore, we see upside potential to demand growth in both regions. More than four-fifths of total demand growth for the present year is estimated to take place in non-OECD countries with developing economies contributing almost 60 per cent of total non-OECD growth, while the group ‘Other regions’ will account for the remaining 40 per cent. Within the developing economies, the Middle Eastern countries, with their solid economic growth estimated at 6.63 per cent for the present year, will consume considerably higher amounts of oil. The income effect combined with low energy prices will continue to underpin demand which is now estimated to rise more than seven per cent.

According to the latest estimates, Chinese GDP growth for the present year has been further revised upwards, from the previous 7.8 per cent to eight per cent. In line with the higher GDP growth, apparent demand has also been revised upwards and is now estimated at 7.66 per cent which translates into a volumetric gain of 500,000 b/d to average more than 7m b/d for the year. The significant increase in China’s 4Q2004 demand — although preliminary and still subject to possible revisions — leads us to believe that problems and bottlenecks still remain. In January of this year, 21 Chinese provincial power grids were ordered shut-down as a result of surging demand for electricity. According to the Chinese government, power shortages will exceed 20 million kilowatts in summer. This means that diesel-fired generators will be needed to meet electricity needs which, in turn, will translate into high consumption and imports of the fuel. Besides the problems in the electricity sector, the rapid growth in the construction and transportation sectors will continue to drive demand in the near future.

World oil supply

Non-OPEC

Estimate for 2004

Non-OPEC supply for 2004 has been revised down to 49.74m b/d, with a quarterly distribution of 49.64m b/d, 49.73m

<table>
<thead>
<tr>
<th>Table D: FSU net oil exports</th>
<th>m b/d</th>
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<tbody>
<tr>
<td>1Q</td>
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</tr>
<tr>
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<td>2002</td>
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<td>2004</td>
<td>7.17</td>
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<tr>
<td>2005</td>
<td>7.38</td>
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</tbody>
</table>

1. Estimate.
2. Forecast.
b/d, 49.49 m b/d and 50.10 m b/d, respectively. The yearly average increase stands at 1.14 m b/d compared with the 2003 figure.

**Forecast for 2005**

Non-OPEC supply for 2005 is forecast to increase 1.08 m b/d. North America is expected to witness a rise of 160,000 m b/d, mainly on a 90,000 m b/d increase from the USA representing the return of output damaged by Hurricane Ivan, as well as 40,000 m b/d growth in Canada, partially offset by an expected 130,000 m b/d decline in both OECD Pacific and Western Europe where the UK and Norway are forecast to dip 70,000 m b/d and 40,000 m b/d, respectively. Total OECD supply is expected to stay almost flat at 21.32 m b/d. Total DC supply is expected to rise 500,000 m b/d, mainly contributed by Africa where Angola, Sudan and Chad will see increases of 180,000 m b/d, 50,000 m b/d and 40,000 m b/d, respectively, as well as Latin America where Brazil will gain 170,000 m b/d. FSU, despite a decline in growth, is expected to be the major contributor to the rise, mainly from Russia’s 360,000 m b/d, while Kazakhstan will add 80,000 m b/d and Azerbaijan 60,000 m b/d. Quarterly figures are redistributed at 50.72 m b/d, 50.78 m b/d, 50.56 m b/d and 51.22 m b/d, respectively. The yearly average is forecast at 50.82 m b/d.

Net FSU export for 2005 is expected at 7.68 m b/d, an increase of 390,000 m b/d over the 2004 figure of 7.29 m b/d (see Table D).

**OPEC NGLs and non-conventional oils**

The 2005 forecast for OPEC NGLS and non-conventional oils remains unchanged from the previous report at 4.14 m b/d, an increase of 190,000 m b/d over the previous year. Figures for 2001–2003 were also unchanged at 3.58 m b/d, 3.62 m b/d and 3.71 m b/d, respectively.

**OPEC crude oil production**

Available secondary sources indicate that OPEC’s output for January was 29.15 m b/d, a drop of 610,000 m b/d from the revised December figure. Table E shows OPEC production as reported by selected secondary sources.

**Rig count**

**Non-OPEC**

Non-OPEC rig activity was higher in January compared with the December figure. North America gained 126 rigs mainly in Canada, while Western Europe was down six rigs to total 52. Rig activity in developing countries lost six rigs to 394, mainly in the Middle East and Latin America.

**OPEC**

OPEC’s rig count was 265 in January, a decline of seven rigs compared with the December figure.

**Stock movements**

**USA**

US commercial oil stocks continued their seasonal draw for the second consecutive month, falling by 8.1 m b or 300,000 b/d to 957.7 m b during the period December 31–January 28. Among the main oil stocks, distillates and to a lesser degree residual fuel oil contributed to this draw while the rest came from other oils.

An increase in crude oil imports of 110,000 b/d and lower refinery runs, which fell from 94.83 per cent on December 31 to 91.62 per cent on January 28, helped crude oil stocks to regain the previous month’s losses, rising by 3.5 m b to stand at 295.3 m b. This level was equivalent to 19.2 days of forward cover, which is 0.6 days higher than that observed on December 31. The absolute figure for crude oil stocks is also about 24 m b or nine per cent above last year’s figure, while a comparison with the five-year average puts the surplus at three per cent or about 10 m b. Gasoline stocks continued to enjoy a persistent build, adding 2 m b to stand at 216.3 m b or about five per cent higher than the level registered last year. Compared with the five-year average, gasoline inventories rose four per cent. The main reason behind this stock-build was lower implied demand which fell from 9.29 m b/d on December 31 to 8.85 m b/d on January 28. Cold weather, mainly in the heating oil consuming US East Coast region, pushed distillates down by 2.5 m b to stand at 118.6 m b. This level was 5.7 m b or four per cent below last year’s level and two per cent below the five-year average. Implied demand for distillates rose from 4.18 m b/d in the previous period to 4.53 m b/d, or an increase of 350,000 b/d.

Most of this healthy demand occurred in heating oil the inventories of which fell from 50.08 m b to 44.83 m b on January 28.

The Strategic Petroleum Reserve (SPR) added 4.6 m b to stand at 678.6 m b during the period December 31–January 28. This level is about 21 m b below the maximum capacity of 700 m b which is projected to be reached by the end of April 2005.

US commercial oil stocks in the week ending February 4 moved in different directions as crude oil and distillate inventories declined by 1.03 m b to 294.3 m b and by 2.99 m b to 115.6 m b, respectively, while gasoline stocks showed a slight rise of 4 m b to 216.7 m b, compared with the previous week’s data. The days of forward cover remained nearly unchanged at 19.2 days for crude oil stock.
Western Europe

An upward revision to December figures helped oil stocks in Eur-16 (EU plus Norway) to reverse last month’s downward trend to display a contra-seasonal build of 11.4m b or 370,000 b/d to 1,085.2m b in January. This gain reduced the y-o-y deficit to 13.0m b or one per cent from the two per cent registered last month. All main product inventories contributed to the build especially middle distillates and gasoline, while crude oil stocks continued to head south but at a much slower pace than in the previous month.

Despite the return of most North Sea production from losses in the previous month, crude oil inventories did not reflect the incremental barrel due to higher exports to the US market which benefited from the re-opening of the Atlantic arbitrage. Hence, crude oil stocks declined a marginal 1.2m b to stand at 455.8m b. This level kept the y-o-y surplus at 3.1m b or one per cent. Main product inventories changed direction, building by significant volumes especially for middle distillate and gasoline inventories which rose 7.1m b to 355.5m b and 4.0m b to 136.6m b, respectively. This build, which was the highest end-January level since 1999, succeeded in lifting the y-o-y surplus of distillates from nearly flat in the previous month to 4.8m b or more than one per cent, while the y-o-y deficit for gasoline was extended to 15.6m b or ten per cent.

Increasing production, mainly in France due to the return of some refineries from unscheduled shut-downs late last year, was balanced by lower demand particularly in Germany. Mild weather was the main driver behind the build in distillates. Although Atlantic arbitrage remained open for European gasoline, stagnant demand in the region helped inventories to recover slightly.

Japan

At the end of December, total commercial oil stocks in Japan stood at 189.9m b, falling by 15.7m b or 510,000 b/d compared with the previous month. This stock-draw narrowed the y-o-y surplus to 7.20m b from the previous month’s excess of 26.4m b. Most of the draw came from crude oil inventories, followed by middle distillates especially jet kerosene.

The considerable draw of 9.2m b or 300,000 b/d to 117.5m b on crude oil stocks was mainly due to increasing refinery runs which rose two per cent to stand at about 92 per cent in an effort to meet rising seasonal demand for winter products. Lower imports on reduced market activity in December due to the end-year holiday season added to the draw. Despite this big draw, crude oil inventories remained 9.10m b or about eight per cent above last year’s level.

Jet kerosene led middle distillates down accounting for almost two-thirds of the total decline of 4.9m b or 160,000 b/d to stand at 40.0m b. The previous month’s y-o-y surplus turned into a slight deficit of 600,000 b or about one per cent. Gasoline inventories followed the same pattern, falling by 1.2m b or 40,000 b/d to 12.9m b on the back of lower production as refineries accelerated middle distillate production at the expense of gasoline, encouraged by the healthy economics of jet kerosene. This draw depressed the y-o-y surplus to just 400,000 b or about three per cent.

Balance of supply/demand

Table I for 2004 shows a minor downward revision to total non-OPEC supply of 50,000 b/d, which now stands at 53.69m b/d. World oil demand has been revised up by 50,000 b/d to 82.05m b/d, resulting in an estimated annual difference of around 28.36m b/d. The quarterly distribution stands at 28.21m b/d, 27.35m b/d, 28.19m b/d and 29.67m b/d, respectively. Accordingly, a significant downward revision has been made to the 4Q balance figure from 510,000 b/d to 230,000 b/d. The quarterly distribution now stands at -20,000 b/d, 1.06m b/d, 1.56m b/d and 230,000 b/d, respectively, while the annual average balance is estimated at 710,000 b/d.

Table I for 2005 shows world oil demand expected at 83.78m b/d and total non-OPEC supply expected at 54.96m b/d. This would result in an annual difference of around 28.82m b/d, an increase of 460,000 b/d over the estimated 2004 level, with a quarterly distribution of 29.04m b/d, 27.70m b/d, 28.41m b/d and 30.12m b/d, respectively.

Table E: OPEC crude oil production, based on secondary sources 1,000 b/d

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>3Q04*</th>
<th>Dec 04*</th>
<th>4Q04*</th>
<th>2004</th>
<th>Jan 05</th>
<th>Dec</th>
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<td>29,066</td>
<td>29,154</td>
<td>-606</td>
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* Not all sources available.
Totals may not add, due to independent rounding.

Table I: OPEC crude oil production, based on secondary sources 1,000 b/d

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<tr>
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* Not all sources available.
Totals may not add, due to independent rounding.
### Table F: US onland commercial petroleum stocks

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<th>Dec 3, 04</th>
<th>Dec 31, 04</th>
<th>Jan 28, 05</th>
<th>Change Jan/Dec</th>
<th>Jan 28, 04</th>
<th>Feb 4, 05</th>
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<td>Distillate fuel</td>
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<td>Residual fuel oil</td>
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<td>Jet fuel</td>
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<td><strong>965.8</strong></td>
<td><strong>957.7</strong></td>
<td><strong>–8.1</strong></td>
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<td>SPR</td>
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1. At end of month, unless otherwise stated.  
2. Latest available data at time of publication.  
Source: US/DoE-EIA.

### Table G: Western Europe onland commercial petroleum stocks

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<th>Dec 04</th>
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<th>Jan 04</th>
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<td>Crude oil</td>
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<td>Mogas</td>
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<td>Naphtha</td>
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<tr>
<td>Middle distillates</td>
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<td>Fuel oils</td>
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<td>111.2</td>
<td>111.7</td>
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<td>117.8</td>
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<tr>
<td><strong>Total products</strong></td>
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<td><strong>616.8</strong></td>
<td><strong>629.4</strong></td>
<td><strong>–6.5</strong></td>
<td><strong>645.4</strong></td>
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<tr>
<td><strong>Overall total</strong></td>
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<td><strong>1,073.8</strong></td>
<td><strong>1,085.2</strong></td>
<td><strong>11.4</strong></td>
<td><strong>1,098.1</strong></td>
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1. At end of month, and includes Eur-16.  
Source: Argus, Eurolstock.

### Table H: Japan’s commercial oil stocks

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<th>Dec 04</th>
<th>Change Dec/Nov</th>
<th>Dec 03</th>
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<tr>
<td>Crude oil</td>
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<td>126.7</td>
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<td>Gasoline</td>
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<td>12.5</td>
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<tr>
<td>Middle distillates</td>
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<td>44.9</td>
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<tr>
<td>Residual fuel oil</td>
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<td><strong>Total products</strong></td>
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<td><strong>78.9</strong></td>
<td><strong>72.4</strong></td>
<td><strong>–6.5</strong></td>
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<td><strong>Overall total</strong></td>
<td><strong>194.8</strong></td>
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</table>

1. At end of month.  
2. Includes crude oil and main products only.  
Source: MITI, Japan.
Table I: World crude oil demand/supply balance \[ m \text{ b/d} \]

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<tr>
<th>World demand</th>
<th>2000</th>
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Non-OPEC supply

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OPEC crude supply and balance

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Stocks

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<td>898</td>
<td>893</td>
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<td>911*</td>
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Days of forward consumption in OECD

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<td>81</td>
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Memo items

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<th>2003</th>
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<td>7.3</td>
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<td>[(a) — (b)]</td>
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<td>29.7</td>
<td>28.4</td>
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1. Secondary sources.
2. Stock change and miscellaneous.

Table I above, prepared by the Secretariat’s Energy Studies Department, shows OPEC’s current forecast of world supply and demand for oil and natural gas liquids.

The monthly evolution of spot prices for selected OPEC and non-OPEC crudes is presented in Tables One and Two on page 76, while Graphs One and Two (on pages 75 and 77) show the evolution on a weekly basis. Tables Three to Eight, and the corresponding graphs on pages 78–83, show the evolution of monthly average spot prices for important products in six major markets. (Data for Tables 1–8 is provided by courtesy of Platt’s Energy Services.)
Graph 1:
Evolution of spot prices for selected OPEC crudes
October 2004 to January 2005

Graph showing the evolution of spot prices for selected OPEC crudes from October 2004 to January 2005. The graph includes the following crudes:
- Saharan Blend
- Minas
- Arab Light
- Arab Heavy
- Iran Light
- Kuwait Export
- Dubai
- Brega
- Tia Juana Light
- Bonny Light
- OPEC Basket

The x-axis represents the months from October 2004 to January 2005, and the y-axis represents the price in dollars per barrel ($/barrel) ranging from 25 to 55.
# Market Review

**Table 1: OPEC spot crude oil prices, 2004–05**

<table>
<thead>
<tr>
<th>Member</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>Saharan Blend (44.1)</td>
<td>31.29</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Minas (33.9)</td>
<td>30.27</td>
</tr>
<tr>
<td>IR Iran</td>
<td>Light (33.9)</td>
<td>29.31</td>
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<tr>
<td>Iraq</td>
<td>Kirkuk (36.1)</td>
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<td>Kuwait</td>
<td>Export (31.4)</td>
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<tr>
<td>SP Libyan AJ</td>
<td>Brega (40.4)</td>
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<td>Nigeria</td>
<td>Bonny Light (36.7)</td>
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<td>Saudi Arabia</td>
<td>Light (34.2)</td>
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<td>UAE</td>
<td>Heavy (28.0)</td>
<td>27.49</td>
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<td>Venezuela</td>
<td>Tia Juana Light (32.4)</td>
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<tr>
<td>OPEC Basket</td>
<td>—</td>
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**Table 2: Selected non-OPEC spot crude oil prices, 2004–05**

<table>
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<tr>
<th>Country/ Crude (API°)</th>
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<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan 4Wav</td>
<td>Feb 4Wav</td>
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<tr>
<td>Gulf Area</td>
<td>Oman Blend (34.0)</td>
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<td>Suez Mix (Egypt, 33.0)</td>
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<td>Brent (UK, 38.0)</td>
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<tr>
<td>Others</td>
<td>Urals (Russia, 36.1)</td>
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1. *Tia Juana Light spot price = (TJL netback/Isthmus netback) x Isthmus spot price.*
2. *OPEC Basket: an average of Saharan Blend, Minas, Bonny Light, Arabian Light, Dubai, Tia Juana Light and Isthmus.*

Kirkuk ex Ceyhan; Brent for dated cargoes; Urals cif Mediterranean. All others fob loading port.

Sources: The netback values for TJL price calculations are taken from RVM; Platt’s Oilgram Price Report; Reuters; Secretariat’s calculations.
Graph 2:
Evolution of spot prices for selected non-OPEC crudes
October 2004 to January 2005
### Table 3: North European market — spot barges, fob Rotterdam

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<th>premium gasoline unleased 95</th>
<th>gasoil</th>
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Source: Platts. Prices are average of available days.

### Graph 3: North European market — spot barges, fob Rotterdam
### Table 4: South European market — spot cargoes, fob Italy ($/b)

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| 2004   |         |                  |         |        |              |               |
| January | 34.41   | 37.04            | 37.24   | 36.46  | 23.16        | 19.39         |
| February | 32.03  | 37.91            | 38.10   | 37.91  | 21.40        | 19.56         |
| March  | 34.24   | 40.92            | 41.07   | 36.94  | 23.63        | 20.02         |
| April  | 35.78   | 44.55            | 44.65   | 38.31  | 24.32        | 21.01         |
| May    | 40.52   | 52.16            | 52.15   | 43.41  | 27.66        | 23.69         |
| June   | 37.48   | 44.64            | 44.74   | 41.92  | 26.54        | 21.07         |
| July   | 40.37   | 49.37            | 49.40   | 45.88  | 26.47        | 23.03         |
| August | 45.94   | 48.76            | 48.80   | 49.41  | 25.47        | 23.59         |
| September | 45.90 | 49.84            | 49.87   | 53.12  | 25.66        | 22.81         |
| October | 50.76  | 54.43            | 54.39   | 60.78  | 29.03        | 24.20         |
| November | 45.68 | 48.70            | 48.74   | 56.47  | 26.72        | 18.65         |
| December | 39.98  | 39.72            | 39.88   | 50.75  | 25.65        | 18.62         |

|        |         |                  |         |        |              |               |
| 2005   |         |                  |         |        |              |               |
| January | 41.69   | 45.72            | 45.80   | 51.04  | 28.69        | 21.80         |

Source: Platts. Prices are average of available days.

### Graph 4: South European market — spot cargoes, fob Italy

$/barrel

- naphtha
- jet kero
- premium
- fuel oil 1%S
- gasoline
- fuel oil 3.5%S

March 2005
Table 5: US East Coast market — spot cargoes, New York

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Source: Platts. Prices are average of available days.

Graph 5: US East Coast market — spot cargoes, New York
Table 6: Caribbean market — spot cargoes, fob

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Source: Platts. Prices are average of available days.

Graph 6: Caribbean market — spot cargoes, fob
Table 7: Singapore market — spot cargoes, fob

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Source: Platts. Prices are average of available days.

Graph 7: Singapore market — spot cargoes, fob
### Table 8: Middle East Gulf market — spot cargoes, fob ($/b)

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Source: Platts. Prices are average of available days.

### Graph 8: Middle East Gulf market — spot cargoes, fob

A line graph showing the price trends of naphtha, gasoil, jet kero, and fuel oil 180 Cst from January 2003 to January 2005.
Forthcoming events

Dubai, UAE, April 6–7, 2005, Outlook for the East of Suez lubricants and baseoils conference. Details: Conference Connection Administrators Pte, 105 Cecil Street, #07–02 The Octagon, Singapore 069534. Tel: +65 6222 0230; fax: +65 6222 0121; e-mail: info@cconnection.org. Web site: www.cconnection.org.

Atyrau, Kazakhstan, April 6–8, 2005, North Caspian oil and gas 2005. Details: ITE Group Plc, ITE Group Plc, 105 Salusbury Road, London, NW6 6RG, UK. Tel: +44 (0)20 7596 5000; fax: +44 (0)20 7596 5111; Web site: www.ite-exhibitions.com.

Yellowknife, Canada, April 7–8, 2005, Moncton, Canada, April 14–15, 2005, Introduction to the natural gas industry … from wellhead to burner-tip. Details: Canadian Energy Research Institute, #150, 3512–33 Street NW, Calgary, Alberta T2L 2A6, Canada. Tel: +1 403 282 1231, fax: +1 403 289 2344; e-mail: johnsgaard@ceri.ca. Web site: www.ceri.ca.

Cairo, Egypt, April 10–14, 2005, World economics for oil and gas. Details: CWC Associates, 3 Tyers Gate, London SE1 3HX, UK. Tel: +44 (0)20 7089 4200; fax: +44 (0)20 7089 4201; e-mail: bookings@thecwcgroup.com. Web site: www.thecwcgroup.com.

London, UK, April 10–15, 2005, Oil and gas mini MBA. Details: CWC Associates, 3 Tyers Gate, London SE1 3HX, UK. Tel: +44 (0)20 7089 4200; fax: +44 (0)20 7089 4201; e-mail: bookings@thecwcgroup.com. Web site: www.thecwcgroup.com.

London, UK, April 11–12, 2005, Benchmarking maintenance and asset performance in the oil and gas industry. Details: Informa UK, PO Box 406, West Byfleet, London KT14 6NN, UK. Tel: +44 (0)20 7017 4581; fax: +44 (0)20 7017 4745; e-mail: cnn.ostrom@informa.com. Web site: www.ibc-uk.com.

London, UK, April 11–12, 2005, Montreal, Canada, April 14–15, 2005, Electric industry fundamentals, electric industry restructuring. Details: Canadian Energy Research Institute, #150, 3512–33 Street NW, Calgary, Alberta T2L 2A6, Canada. Tel: +1 403 282 1231, fax: +1 403 289 2344; e-mail: johnsgaard@ceri.ca. Web site: www.ceri.ca.

Fujairah, UAE, April 11–13, 2005, 4th International Fujairah bunkering and fuel oil forum. Details: The Conference Connection Inc, PO Box 1736 Raffles City, Singapore 911758. Tel: +65 6222 0230; fax: +65 6222 0121; e-mail: psc@cconnection.org. Web site: www.cconnection.org.

New Orleans, USA, April 12–14, 2005, LNG New Orleans 2005. Details: CWC Associates, 3 Tyers Gate, London SE1 3HX, UK. Tel: +44 (0)20 7089 4200; fax: +44 (0)20 7089 4201; e-mail: bookings@thecwcgroup.com. Web site: www.thecwcgroup.com.

Calgary, Canada, April 13, 2005, Electric power industry fundamentals and the role of the AESO. Details: Canadian Energy Research Institute, #150, 3512–33 Street NW, Calgary, Alberta T2L 2A6, Canada. Tel: +1 403 282 1231; fax: +1 403 289 2344; e-mail: johnsgaard@ceri.ca. Web site: www.ceri.ca.


Calgary, Canada, April 18–19, 2005, Natural gas market fundamentals. Details: Canadian Energy Research Institute, #150, 3512–33 Street NW, Calgary, Alberta T2L 2A6, Canada. Tel: +1 403 282 1231; fax: +1 403 289 2344; e-mail: johnsgaard@ceri.ca. Web site: www.ceri.ca.

Abuja, Nigeria, April 18–21, 2005, Nigeria oil & gas 2005. Details: CWC Associates, 3 Tyers Gate, London SE1 3HX, UK. Tel: +44 (0)20 7089 4200; fax: +44 (0)20 7089 4201; e-mail: bookings@thecwcgroup.com. Web site: www.thecwcgroup.com.


London, UK, April 26–27, 2005, New opportunities in Pakistan’s oil and gas sector. Details: CWC Associates, 3 Tyers Gate, London SE1 3HX, UK. Tel: +44 (0)20 7089 4200; fax: +44 (0)20 7089 4201; e-mail: bookings@thecwcgroup.com. Web site: www.thecwcgroup.com.


Singapore, April 27, 2005, Workshop on gas/LNG pricing. Details: Centre for Management Technology, 80 Marine Parade Road, #13–02 Parkway Parade, Singapore 449269. Tel: +65 6346 9132; fax: +65 6345 5928; e-mail: hancy@cmtsp.com.sg; Web site: www.cmtsp.events.com.


Singapore, April 28–29, 2005, 10th Asian natural gas markets — LNG, pipelines, power. Details: Centre for Management Technology, 80 Marine Parade Road, #13–02 Parkway Parade, Singapore 449269. Tel: +65 6346 9132; fax: +65 6345 5928; e-mail: hancy@cmtsp.com.sg; Web site: www.cmtsp.events.com.
OPEC Meetings

The 115th Meeting of the Board of Governors took place in Vienna, Austria, on February 21–23, 2005.

Secretary General’s diary

The IP Week 2005 was organized by the Energy Institute and held in London, UK, February 14–17, 2005.

The Second African Petroleum Congress was organized by the government of Algeria and took place in Algiers, Algeria, February 16–17, 2005.

A preparatory meeting for the European Union-OPEC Energy Dialogue was held in Brussels, Belgium, February 25, 2005.

Secretariat missions

A conference on Identifying the incentives and mechanisms needed to accelerate global carbon sequestration via enhanced oil recovery was organized by the Westminster Energy Forum, and took place in London, UK, February 10, 2005.

A training course on Shipping, supply and trading was organized by the Petroleum Economist, and held in London, UK, February 21–23, 2005.

Forthcoming OPEC Meetings

The 136th (Extraordinary) Meeting of the OPEC Conference is due to be convened in Vienna, Austria, June 7, 2005.*

The next Ordinary Meeting of the OPEC Conference will be convened in Vienna, Austria, September 19, 2005.

* Consultations are ongoing regarding changing this date, in view of its conflict with another major international conference in Vienna at this time.

Obituary

Professor Thomas Stauffer

It is with much sadness that we report the death of Professor Thomas (Tom) R Stauffer who passed away on Friday, March 11, 2005, after a long illness. Tom who described himself as “an international oil and finance consultant”, and “teacher of economics” was also a widely respected author, in both the academic and journalistic fields.

He was educated as an engineer at the Massachusetts Institute of Technology and the University of Munich, before receiving an MA in Middle Eastern Studies and a PhD in Economics from Harvard University. Throughout the 1970s and 1980s, he held regular teaching posts in the USA (Harvard and Georgetown Universities), Austria (the Diplomatische Akademie in Vienna) and in the Middle East.

Tom spent many years moving in Middle Eastern and OPEC circles, and was around since the Organization’s formation when it was based in Geneva. Friendly, inquisitive, perceptive and always thought provoking, Tom Stauffer gave many presentations at OPEC. Sometimes he would pause mid-sentence and question out aloud the logic of what he was saying, and whether it was correct, and that made him a most human, modest and humble person, essentially making him most likeable.

At the 2004 OPEC International Seminar, Tom Stauffer received a Special Award from OPEC in recognition of a career devoted to energy issues. In accepting the Award, he said that he could not have conceived working in another field, and continued to be fascinated by the world of oil.

Tom Stauffer is survived by his wife, Ilse, three children and one grandson. His presence will be sadly missed by the many people who knew him — including staff at the Secretariat — who enjoyed his genial company.

Professor Thomas Stauffer

February
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