

# IEA Outlines Energy Policy Challenges

The International Energy Agency has made its first attempt to identify energy-policy challenges common to the 26 member countries.

Its 30th-anniversary edition of an annual review of energy policies takes a "cross-country" approach comparing policy approaches of member countries during the past 4 years.

Executive Director Claude Mandil said the comparison would "serve as a touchstone for future in-depth reviews." He called reviewing energy policies "the chief activi-

ty of the IEA, carried out on a peer basis for each individual country every 4 years."

The IEA grew out of the Organization for Economic Cooperation Development in 1974 in response to the Arab oil embargo.

Mandil said IEA's role has changed from that of watchdog over oil supply to coordinator and mentor "to help countries achieve strong, coherent, and public energy policies," which he framed in terms of energy security, economic development, and environmental protection, ogj.pennnet.com reported.

Among areas where

energy policies have "room for improvement," Mandil said, are "public awareness of energy policies and more cost-effectiveness in climate change mitigation."

In a statement, the agency said the need for public awareness was especially important in climate-change issues "as the public is partly responsible for the rapid increase in greenhouse gas emissions."

It also said "not-in-my-backyard" obstructionism toward energy investments "has to be overcome" and regretted that in most IEA countries cost-effectiveness in dealing with greenhouse

gas emissions isn't integral to decision-making. "For example," the statement said, "some policies promoting renewable energies are instrumental but too costly."

Environmental costs should be included in energy prices and taxation and stronger energy efficiency measures enforced in the transport sector, the agency stated. In the liberalized energy markets, it said, many "incumbents" (former electric power and gas monopolies, for instance) are an obstacle to effective competition.

IEA said governments have a role in liberalized

markets: They must ensure undistorted, cost-reflective prices for efficient market operation and sound investments. They also have a role in research and development.

Challenges to be met over the next 30 years, IEA said, include combining energy security with greater economic efficiency and climate change mitigation; coping with growing dependence on Middle Eastern oil and gas; husbanding massive investment to increase global energy supply; and adopting tough policies to abate energy-related carbon dioxide emissions.

## Low Oil Prices Will Benefit Pak Economy

The Government of Pakistan has been maintaining a cap on domestic oil prices since April 3, 2004.

While analysts and independent economists doubt whether the government would be able to maintain this cap on domestic oil prices for long, the government—despite suffering a loss of Rs20 billion in subsidies alone on this account—has been able to stand by its commitment of not raising domestic oil prices in a scenario of rising international oil prices.

This ability of the government to maintain the cap on domestic oil prices can be attributed to burgeoning foreign exchange reserves of the country, exceptional performance of the national economy, higher than expected tax collections and ballooning dividends from state owned corporations.

However, the recent downward movement of international oil prices provides a beacon of

light that the policy makers may be able to stand by their commitment and continue to insulate the people of Pakistan from the impact of rising international oil prices.

Oil prices witnessed a steep decline during the last week. Mild winter and unexpected increase in inventory levels in USA were main reasons for this decline. The rate of decline was aggravated by offloading from fund managers.

During last week, US oil prices declined by 14 percent, to \$42.77/barrel. These price were at a 3-month low.

Even though, there was a rebound on Monday, current oil prices are still 23 percent lower from their peak of \$55.67/barrel in late October.

Abdul Rasheed, an analyst at Invest Capital Securities has given his forecast for oil price trend in the future and its impact on oil related stocks that carry a weight of almost 35

percent in the KSE-100 Index.

Abdul Rasheed has said: "During Jul-Oct FY05 Saudi Light—benchmark for Pakistan—averaged \$38/barrel. Going forward, higher demand in winter season and supply risk are likely to cause oil prices to remain on the higher side, jang.com reported."

OPEC members are currently operating far beyond their allocated quota due to strong global oil demand. Keeping in view the recent fears of excess supply, OPEC is likely to reduce quota soon. Some OPEC members have already started lobbying for quota reduction. We expect Saudi Light to average \$37.5/barrel (US price to average \$42/barrel) during FY05. We have assumed \$52.5/barrel oil prices during FY06 and \$30/barrel going forward."

Regarding the impact of declining international oil prices on the oil and gas related scrips, the analyst said: "Of the

listed sectors, E&P is the one which benefits most from rising oil prices. With declining oil price trend there are fears of decline in sector profits beyond FY05. However, due to a number of factors, this sector's stocks would witness consistent growth in the coming years."

"In case of OGDCL, higher profits would be due to its increasing oil and gas production. Increasing wellhead gas prices for PPL's two major fields (Sui and Kandhkot), under GPA 2002, guarantee growth in its profits. Additional gas production from Tal Block would compensate for declining oil prices in case of POL," he added.

Regarding the domestic oil price scenario, Abdul Rasheed was of the view that, "Regulated oil products (HSD, Mogas, Kerosene) prices are not expected to come down in FY05 since the government has taken a heavy hit in its petrole-

## Earth's Mantle May Be Viable Fuel Source



If large amounts of hydrocarbons really are trapped in the Earth's mantle, they could keep the world supplied with energy.

Untapped reserves of oil and methane may exist 30km below the Earth's surface, scientists have reported.

If large amounts of hydrocarbons really are trapped in the Earth's mantle, they could keep the world supplied with energy long after conventional gas and oil fields have run dry, the report in a recent issue of the Proceedings of the National Academy of Sciences said.

The question is as yet unanswered, but new research has shown that fuel sources produced by volcanic activity could in theory exist at great depths.

Oil has been drilled since 1859 from wells that penetrate no deeper than five to eight kilometers into the Earth's crust. The oil and natural gas obtained commercially today is formed organically from the crushing of decomposed vegetation, yahoo.com reported.

The oil and natural gas obtained commercially today is formed organically. Methane, the most abundant hydrocarbon, is the main component of natural gas and often accompanied by liquid petroleum. But many scientists believe there may be reserves of hydrocarbons made without living material within the inferno of the Earth's upper mantle much deeper underground.

American scientists duplicated the conditions that exist at depths of between 19km 60km under the continents. Team member Russell Hemley,

from the Carnegie Institution of Washington, said, "These experiments point to the possibility of an inorganic source of hydrocarbons at great depth in the Earth—that is, hydrocarbons that come from simple reactions between water and rock and not just from the decomposition of living organisms."

Common materials such as iron oxide, calcite and water were squeezed to pressures ranging from 50,000 to 110,000 times that of the atmosphere at sea level. The samples were also heated to temperatures as high as 1,500 degrees centigrade.

The researchers found that methane formed from chemical reactions involving the carbon in calcite over a wide range of temperatures and pressures. Ideal conditions were temperatures and pressures of about 540 degrees centigrade and less than 70,000 atmospheres.

Freeman Dyson, from the Institute of Advanced Study at Princeton University, who reviewed the research, said, "This paper is important, not because it settles the question whether the origin of natural gas and petroleum is organic or inorganic, but because it gives us the tools to attack the question experimentally."

"If the answer turns out to be inorganic, this has huge implications for the ecology and economy of our planet as well as for the chemistry of other planets."

## Egypt to Become Gas Giant



Egypt produces 600,000 barrels of crude per day.

Egypt, which hosted last week an OPEC meeting of the world's top oil-producing nations, may have only limited oil resources itself but is pinning national hopes on becoming a gas giant.

With his country an OPEC observer, Egypt's Oil Minister Sameh Fahmy called for "coordination between OPEC and non-OPEC producers to bring stability and balance to the international oil market," ahead of the meeting.

Egypt's income from modest oil and gas exports has soared 70 percent from 2.4 billion dollars for the equivalent of some 14.2 million tons of oil in 2000-2001, to 4.1 billion dollars in 2003-2004 for 18.6 million tons.

Egypt produces 600,000 barrels of crude per day and has

proven oil reserves of 2.8 billion barrels.

But with reserves expected to fall to 2.5 billion barrels in 2005, the absence of significant discoveries plus rapid growth in domestic consumption could usher in the day when Egypt becomes a net importer of crude, experts say.

Today, 60 percent of the country's energy consumption is fueled by oil, which amounts to 30 percent of national exports.

Domestic prices, heavily subsidized, are the lowest in the region, while fuel and gas consumption is soaring, AFP reported.

So as oil fields dry up, Egypt is eyeing a future in natural gas, evident from an ambitious government export project. Several foreign companies who have already exceed-

ed their oil allowances have switched to gas.

Egypt is in the process of "making money out of its gas," confirmed Shamel Hamdy, an official at the oil ministry.

By 2010, it hopes to become one of the principal world gas exporters supplying European and American markets, he said.

Known reserves of natural gas are in the realm of 1,800 billion cubic meters (63,566 billion cubic feet) or eight percent of the world's supplies. The outlook is prosperous and new discoveries possible, say experts.

The first section of an intra-Arab gas pipeline inaugurated in July 2003 already supplies a billion cubic meters of Egyptian liquefied natural gas (LNG) to Jordan each year. There are plans to extend the pipeline to Lebanon, Syria and Turkey, and tentative arrangements to include Bulgaria and Romania.

Further afield, Egypt is to start supplying LNG to Spanish electricity company Union Fenosa in 2005.

With this deal in mind, a one-billion-dollar gas refinery was built in Damietta, in the north, paid by private investors from home and abroad.

From 2005, Egypt is also due to ship 4.8 billion cubic meters of LNG to France—amounting to 10 percent of the needs of state operator Gaz de France (GDF)—from its factory in Edku.

The same station is set to supply 3.6 billion cubic meters a year to British Gas, as well as pump out exports to the United States and Italy.

Securing other projects in the pipeline could push Egyptian LNG exports to 50 billion cubic meters per year. "In the coming years, Egypt will be one of the largest liquefied natural gas suppliers," a British Gas official told a recent energy conference.

Israel, which signed a peace treaty with Egypt 25 years ago, has also expressed interest in Egyptian gas for its electrical power stations.

But negotiations have dragged ever since the Palestinian uprising broke out in 2000, with Cairo fearful of the political repercussions in the Arab world of concluding such a deal.

## Malaysia Shifting Focus on Coal

Malaysia, which has been largely dependent on natural gas to generate electricity will switch to coal more as it is much cheaper and this will also reduce its reliance on the traditional source of fuel.

Minister of Energy, Water and Communications Datuk Seri Dr Lim Keng Yaik said that by 2010 the share of coal in the fuel mix for electricity generation would rise to about 40 percent from the current 28 percent.

"Being too dependent on gas is just as risky as

being too dependent on oil during the 70s. Therefore it is incumbent upon the industry to mitigate these risks by increasing the usage of other sources of energy including coal to generate electricity," he said in his opening speech at the fifth International Conference and Exhibition CoalTech 2004, here Tuesday.

At present, under the Four-Fuel Policy, introduced in 1981 to reduce the country's dependence on oil as the main source of energy in the aftermath of the '70s oil crisis,

Malaysia diversified to natural gas, coal and hydro power for power production.

Now, nearly 65 percent of electricity generation comes from natural gas.

"The government has turned to coal as a major fuel in the country's fuel mix to reduce its reliance on gas and therefore coal will become a crucial pillar of power generation in the long-term," said Dr Lim, bernama.com reported.

Coal is competitively priced and its supply relatively stable compared with other fuels due to the

abundance of supply worldwide, he said.

Moreover, much progress has been made in coal extraction technology which is not detrimental to the environment. Once billed as dirty fuel, the commodity is returning as a competitive energy source in Malaysia and globally, he said.

But there is also a flip side to the move. At present coal price is about US\$40 per ton, it jumped from about US\$25 per ton in the span of 18 months.

Malaysia spent a cool RM1.2 billion to purchase some eight million tons of

coal this year and by 2009 when demand tips 19 million tons, it is expected to pay a whopping RM3 billion.

At the same time, coal resources in Malaysia are limited, estimated to be about one billion tons and they are low grade lignite and sub-bituminous coal, the minister said.

Hence, Malaysia imports virtually all its coal with Australia supplying nearly 60 percent, Indonesia 30 percent and China and South Africa five percent respectively.

"The Malaysian government expects that an