

World Energy Interdependence and OPEC's Policy

by *Rilwanu Lukman**

As we approach the end of the 20th century, there is a distinct upward trend in the globalization of the world's economic interests. The phrase "global village" is creeping into our language, inexorably with the advance of the hi-tech information revolution! The term "village" traditionally refers to the smallest, self-contained community of mankind. As the requirements of communities become more diverse and complex, they resort to broader-based administrative structures. Progressively, their economic affairs operate at the level of the town or city, the local region, the nation and, particularly in the past two decades, the international region. Now we are operating increasingly at a global level.

At the same time, however, as the macro units of operation expand, there is the contrasting tendency towards a sentiment best encapsulated in the whimsical expression of two decades ago, "small is beautiful." This phenomenon is not merely inspired by a wave of nostalgia. It also springs from the realization that many day-to-day affairs function better at the smaller, more personal level.

The energy industry is very much entrenched in this dichotomy. On the one hand, there is the recognition that to realize the true potential for energy efficiency, one must adopt a global perspective. On the other hand, there are the individual, locally induced energy needs of mankind, to prepare food, to keep warm, to travel from A to B and to generate wealth. The ideal global energy equation consists of an incalculable number of smaller, interdependent energy functions.

If, in the following, I concentrate excessively on the international oil market, I make no apology; this is, after all, the principal area of interest to the organization I represent, OPEC. However, the challenges facing the oil market are closely related to those affecting the energy industry at large. Further, I shall focus on the remaining five years of this century - although one cannot, of course, divorce oneself entirely from the longer term.

This five-year period equates roughly to the average lead time for investment in the oil sector. Hence, we already have a pretty good idea about how the oil sector - and, indeed, the energy industry as a whole - will be structured throughout this period. This suggests two dimensions to activities within the industry during this time. First, there is the day-to-day running of an industry whose overall shape and style is expected to evolve only slowly from what we have today. And secondly, there is the planning for the future that must take place during these five years; it is here that we may begin to detect the potential for radical change in the complexion of the industry. There are strong linkages between the actions that satisfy each dimension's requirements. There are

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also - naturally - conflicts of interest, trading off the present for the future. Throughout, however, the concept of energy interdependence manifests itself.

Keeping the two-dimensional aspect at the back of our minds, let us seek to identify the major influences on the energy industry in the twilight years of the 20th century.

We can begin with the global village, since we referred to this earlier. What will be the extent of the global village and how will it affect the energy industry? As the logical conclusion of the centuries-long process of rationalization and technological advance, one might at first envisage a single, massive global economy, with a concomitant, centralized system of energy supply. However, such are the political, social and cultural allegiances of mankind, as well as the sheer impracticalities of such a monolithic structure, that a rather less grand process of evolution appears likely. This is indeed already taking shape, with the regionalization of the world's principal economic areas into several large, increasingly self-contained groups. Part and parcel of this process is energy supply, and we can, similarly, detect a regional trend manifesting itself here. However, this is a trend, rather than an absolute phenomenon. Clearly, energy supply will continue across regions, since other, basic economic factors will be at work.

The concept of large, regional groupings, with their indigenous energy systems, is not new. The former Soviet Union was one such grouping which lasted more than 70 years; its integrated energy supply system stretched well beyond its vast borders, to embrace neighboring states in Eastern Europe. Up to the end of the 1980s, the FSU was the world's leading oil producer. Its dissolution, however, revealed an oil industry in a state of disarray, characterized by obsolete technology, high inefficiency and poor investment. Oil production and export levels swiftly declined; only now are there signs of a bottoming out. Other branches of the energy industry also suffered rapid, substantial setbacks in the post-Soviet period. Natural gas output fell heavily, although the region remains comfortably the world's leading exporter of this hydrocarbon. Coal suffered a precipitous decline, with present production levels a fraction of those of the Soviet era. The nuclear industry, still rocking from the Chernobyl accident of 1986, was seen to be replete with serious safety problems. Newly independent republics each set about rebuilding their indigenous energy systems; much of this has involved looking outwards from the former Soviet area, into the wider world. The European Energy Charter was set up to assist this process and to attract much-needed investment to the region. The future pattern of energy supply in the former Soviet Union - and its impact on the world at large - is extremely difficult to predict beyond the immediate term, due to the complex of politics, nationalism and other pressures weighing heavily upon the region at the present time.

Much of the former Soviet area's problems stem from its use of obsolete technology. This brings us neatly onto the third major influence, technological change. This is an on-going matter affecting all branches of the energy industry. The pace and extent vary, however. At



Dr. Lukman and other panelists at the opening session.

the present time, the spotlight is very much upon the rapid rate of technological advance in the upstream oil industry, which has had the effect of greatly extending the lives of existing reserves, as well as lending commercial viability to exploration and production in more remote areas. Nowhere is this more true than in the North Sea, where pioneering recovery techniques have given a new lease on life to reserves which, previously, had been expected to be on a downward trend by now.

Compounding the issue – and, notably, the expense – of technological change is the wave of new rules and regulations being discussed or imposed across the energy world. Many of these have a direct connection with environmental concern. They can be divided into two areas – visible and invisible. The visible relate to the tangible state of the environment and the fostering of healthy, clean and safe life-styles for ourselves and future generations. We in OPEC welcome any sensible, balanced measures taken to achieve these noble objectives. The invisible side is far more tenuous and controversial, as well as being highly politicized. Here we are talking about the phenomenon of climate change and global warming, and the ensuing, purported remedial measures. The most notable of these is the imposition of prejudicial energy taxes. What alarms us is that many countries seem prepared to impose drastic fiscal measures to remedy a supposed malaise, whose very validity is being questioned increasingly by reputable scientists and other experts across the world. If implemented on a wide scale, such taxes would have highly disruptive, hugely expensive repercussions for the world energy mix, as well as the global economy at large. For OPEC's member countries, they would have a devastating impact on our export revenues and, among other things, on our ability to invest in a future, secure oil supply.

The four aspects we have covered so far – regionalization, the FSU, technological change and the environment – all have a part to play in bringing about an economically viable, environmentally harmonious world energy industry for the coming years and into the 21st century. However, they all have one thing in common, and that is the need for investment. This is the fifth of our major influences. It raises so many questions, questions which require answers, and action, as the years unfold. Where does the money come from? How much is

needed? Where should it go within the energy industry? What should we concentrate on? Will political considerations continue to outweigh economic considerations? The competition for funds will both be within the energy industry and between it and other industries. Within the energy industry, it will be between different sources of energy. Among the sources of energy, it will be between the different areas of supply. The most blatant case in the oil industry is between investment in the easily accessible reserves, which lie principally in the OPEC area, and the more difficult ones, which lie in the hazardous, remote areas.

Closely related to investment is the issue of pricing – our final major influence. When prices are low, fewer funds will be available for investment. But demand, at the same time, will become higher, increasing the need for investment. In such situations, funds will inevitably be attracted to the areas where you get more for less. If prices are high, then you are liable to get the opposite effect. Furthermore – and this applies particularly to the oil industry – the issue of pricing itself is complicated by the fact that, in the short-to-medium-term, it depends upon more than just economic fundamentals. In today's highly computerized, information age, spot and futures markets play a disproportionate role in determining the price of oil on world markets. This has been a feature of the past decade, and there is little to suggest that it will change, certainly over the remaining years of this century. Everything now happens at such a rapid pace and with greater magnitudes than is either natural or healthy for the market. A mild run on demand in an unexpectedly severe winter, when stocks are already low, will obviously raise prices; but it need not lead to wild overshoots in price, to be soon followed by exaggerated swings in the opposite direction.

So far, I have identified six major influences on behavior in the world energy industry over the remaining years of this century. As I said earlier, we must consider these in the context of keeping the ball rolling in this five-year period, as well as planning for the future. Each of these major influences can be hived off as separate discussion subjects in their own right, but time prevents us from doing this. What we can do, however, is to convey to you how these and other factors have molded our perceptions of world energy market performance in the period up to the year 2000. Here, we use projections from OPEC's *World Energy Model*, reference case scenario.

With the world economy projected to grow at an average annual real rate of 3.4 percent between now and the year 2000, we expect world commercial energy demand to continue to rise, at an average annual rate of 2.0 percent. The most rapid energy growth is expected to occur in the developing countries, at 3.3 percent, and the slowest in the OECD, at 1.5 percent. For the former centrally planned economies, which, for the sake of neatness in our projections, include China, the projected figure is marginally below the world average, at 1.9 percent; effectively, protracted weakness in the former Soviet Union is balanced out by continued rapid growth in China.

Looking at individual energy sources, at a global level, oil is expected to experience the slowest growth rate between now and the year 2000, at 1.8 percent; coal and gas will be neck-and-neck, at 2.0 and 2.1 percent respectively; while

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The World Energy Outlook (continued from page 9)

ity, refinery upgrading and environmental protection measures, which exceed the financial capabilities of the domestic industry. The restructuring of the domestic petroleum industry and regulatory changes are essential for attracting foreign partners that can provide capital and know-how.

Gas

We expect natural gas demand to grow substantially, due principally to the progressive replacement of coal-fired power plants. The region's own gas production accounts for only about 45 percent of its needs. The majority of the region's gas requirements is met by imports from Russia. The region's own production will likely decline beyond 2000. Consequently, there will be an increased need for gas imports.

Supplies from the former Soviet Union will continue to be the main source of imports. Increased gas demand in central and eastern Europe combined with rising demand in OECD Europe will require new gas transport infrastructure. These will likely make more imports available from the former Soviet Union. Thus, over the longer term, the growth in gas demand will increase the region's dependence upon the former Soviet Union.

Given the growing dependence on imported oil and gas, energy security considerations need to be firmly embedded in the countries' energy policy objectives. Some countries, including Hungary, have already made promising progress in enhancing their emergency preparedness. The majority of these countries, however, will have to substantially increase their efforts. Storage capacity for both oil and gas is generally not sufficient to be prepared for a supply disruption.

Coal

In 1993, over half of the total energy demand in central and eastern Europe was met by solid fuels. Coal is the region's most significant energy source, which explains the dominant role it has achieved over time. However, much of the consumption of solid fuels in the region is accounted for by brown coal.

The reliance on low-quality coal, coupled with a significant presence of energy intensive industry and often inadequate pollution control, has led to severe environmental problems. Governments are required to reduce sulphur dioxide emissions as part of international commitments they are partner to, such as the Convention on Long-Range Transboundary Air Pollution. Finding solutions for cleaner and more efficient energy supply will take time and demand substantial investment in new technology and environmental protection measures. Consequently, the role of coal in the region's energy supply mix will diminish gradually but remain significant.

Restructuring of the coal industry is a necessary condition for modifying the fuel pattern and providing energy more cost effectively. Governments are becoming increasingly concerned with the social costs of scaling down the mining industry. For some countries, the costs of closing unprofitable mines are substantial. Decisions related to the restructuring of coal mines in most cases expand beyond those of simple economics

of production. Experience in IEA member countries shows that social welfare support, if required, should be provided directly through the welfare system, not by prolonging high-cost production.

Electricity Production and Nuclear Energy

We expect electricity demand in central and eastern Europe to grow between 1.0 and 1.8 percent annually over the outlook period. Some countries will soon have to make decisions on how to provide new capacity and to replace power plants for which continued operation is uneconomic. Security supply considerations, economics of fuel supply, environmental constraints and social policy objectives will influence the fuel and technological choice.

A particularly sensitive issue is the role of nuclear power. In 1993 nuclear power plants supplied 13 percent of the region's electricity production, but its share in electricity generation is considerably more important in some countries. In Hungary and the Slovak Republic, for example, nuclear power plants produce about 40 percent of total electricity production.

For some countries, nuclear power is an essential strategic energy source. As a result of reduced priority of power generation from fossil-fuel burning plants, the share of nuclear generation has increased in some countries in the early 1990s. We expect that nuclear energy will continue to provide a significant portion of electricity generation, but its average share could decrease to between 10 to 12 percent in 2010.

It is commonly accepted that the nuclear industry in some countries in the region suffers serious design and operational safety weaknesses, faces substantial decommissioning and clean-up costs, and lacks adequate storage facilities for radioactive waste. It is in the industry's interest that any continuation of investment in nuclear energy is fully in line with fundamental safety principles set out by competent international authorities, and that reactors are made acceptable under internationally recognized licensing practices.

The IEA's Role: From Assistance to Partnership to Membership

Intensive IEA cooperation with economies in transition began soon after the collapse of the communist regimes. Initial activities focused on energy policy reviews, drawing on the 20 years experience of the Agency in examining the policies of its member countries. The aim of these first reviews was to provide immediate assistance and advice on the most pressing energy policy issues, and to lay the foundation for the development of sound market-oriented energy strategies.

Follow-up to energy surveys has focused on issues such as emergency preparedness, market liberalization and reduction of trade barriers.

At present, Hungary, Poland, the Czech Republic, Slovakia, and Slovenia have applied for IEA membership. On May 20 Russia also expressed its intention to join the OECD and the IEA. We look forward to developing closer relations with these countries and to welcoming a number of them into the IEA as soon as they have fulfilled the criteria for membership.

News, Oil Markets and the Reality Gap

by Neil Fleming*

I want to talk today about news. Specifically, I want to talk about the relationship between news and oil markets, between news and oil prices, and between news and the fundamentals which supposedly govern the outright level of those prices.

This is going to be a sort of "state of the nation" speech, in which I'll try and look at where the world of oil journalism currently stands, how it fits into the industry, and what its role is. I don't promise any answers to the questions I am going to put, but I think they are questions worth asking.

Let me start with the absolute basic question: what is news?

There is a curious tendency in the world today, and particularly in financial markets, to think of news as an absolute given - to equate events with reports on events as if there was a one-to-one correspondence of fact to report; as if, in other words, the news reports you read on your screen or in your fax or in your newsletter were perfect mirrors of reality.

This is, rather obviously, a mistake. It's a mistake because, as you all - I am sure know, news-reporting in general is horribly imperfect. News about the energy world suffers from all the problems which plague news about everything else: political bias, lack of perspective, fashionability, sensationalism ... and plain old-fashioned stupidity on the part of reporters.

Yet the mistake persists. And it persists particularly strongly today among oil traders, oil brokers, and the people on the floor of the NYMEX and the IPE.

Picture the scene. A Platt's reporter calls up a trader to ask what is moving prices. The trader replies: "Oh, it's news."

News about what? What sort of news? "Oh, just news." And then that loaded word: "Apparently"

Apparently, Iraq is going to sell oil again. Apparently, OPEC is overproducing. Apparently, stocks are very low. Or (my favorite) apparently, it is warmer in the spring than in the winter.

What does this approach to news by the market mean? Where does it come from?

What I believe it represents is an attempt to treat news as data, as a measurable, manipulable quantity which can be used and exploited in the same sort of way as technical trading tools.

The idea is that you, the trader, pre-program your response to a news item. News in, price movement out. Iraq wants to implement UN Resolution 986: sell. Iraq implements UN Resolution 986: buy. Why buy? Because of rule-of-thumb number one: sell the rumor, buy the fact.

News in this model acts as an over-ride trigger to technical trading.

It's a nice idea. The only problem with it is: it doesn't

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work.

The kind of response the market makes to news headlines is today in fact very similar to its responses to technical indicators. The trouble is that an item of news simply cannot be treated in this way.

News is not raw data susceptible of mechanistic interpretation. It is itself *already*, by definition, an interpretation. When the trading community does its further mechanistic interpreting, it actually and unwittingly transforms news into something quite different - and potentially dangerous.

This is, I think, bad news for people like yourselves whose jobs by and large involve trying to make intelligent sense of events around you, and trying to make accurate predictions about the direction and level of prices over a slightly longer period than 25 minutes.

The market runs, as it were, off meta-news. And as a result, the economist or analyst faces an unpleasant choice. If you choose to analyze the events and news reporting around you in an attempt to establish the underlying truth, you will misread the market.

If you follow market logic in interpreting news, you will potentially damage your ability to understand the big picture.

Take my example of a few minutes ago - the sell/buy responses to Iraq's negotiations with the UN over the past few months. Here is what, as I understand it, actually happened:

In January of this year Iraq's ambassador to the UN told a rather undistinguished group of non-aligned movement delegates in New York that his country wanted a meeting with UN Secretary General Boutros Boutros Ghali. He said Iraq was trying to contact Boutros Ghali to talk to him about UN Resolution 986.

This as you know is the resolution which allows the sale of Iraqi crude for humanitarian purposes.

The market plummeted.

Clearly here was a fresh initiative from Iraq aimed at resuming limited oil exports.

Wrong. It wasn't a fresh initiative, it was part of an ongoing one. The only reason Iraq was "trying to contact" Boutros Ghali was that he was out of town. The only reason the ambassador brought it up was that somebody asked him. The drama was artificial.

OK, then. Clearly Iraq had made up its mind it wanted to implement UN986.

Wrong again. The main thing on Saddam Hussein's mind at the time was trying to persuade the UN to change UN986, to get rid of the contentious clauses about food distribution in Kurdish areas. Again, as late as mid-April this year, Iraqi contacts were indicating the chances of Iraq accepting the resolution at all were less than 50-50. Accepting UN986 is a gamble for Saddam Hussein, since it leaves him, potentially for all time, at the mercy of the UN Security Council. Accepting UN986 may even be his downfall.

So what we witnessed in January, in fact, was an example of what I should like to term "News Creep."

This is an expression stolen from the bombing raids of the Second World War - "creepback" was the tendency of successive planes in an air raid to drop their

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bombs earlier and earlier over the target. Planes at the front of the raid aimed at the marker flares. But planes at the back typically dropped their bombs a mile or two, or three, further back than they should.

News Creep is the tendency of oil markets to react earlier and earlier to things which have not happened yet.

A really startling example of News Creep occurred just last week, on the day on which Iraqi chief negotiator, Abdul-Amir al-Anbari, signed the memorandum of understanding at the UN in New York clearing the way for a return of Iraqi crude to export markets.

The "news in-price movement out" school of trading had, for short-covering reasons, long since determined that the actual signing of the deal should be a buy trigger. But on the actual day, the screen headline which sparked the start of a \$1.50 price surge, filed at 1308 GMT on May 20th, was this:

Anbari has instructions from Baghdad: Iraqi Mission.

It was a Platt's *Global Alert* headline, as it happens, but that is not a boast. Instead, it's an admission of sorts. The fact is that we in the newsroom at Platt's had no idea the market would respond in the way it did, which was to rocket through the roof. Why should it? News Creep.

Now the question is: are phenomena like this important? Do things like News Creep mean anything, or are they just amusing froth at the surface of the market, irrelevant to the deep swell of the economist's beloved *fundamentals*?

I'd like to argue that they are important, and indeed that they have a profound influence on some market aspects which are traditionally seen as fundamental.

Stock levels, as everyone here knows, are at historic lows in the United States. A central reason for those lows has been the oil companies' perception that crude supplies this year will comfortably outrun demand. A central reason for that perception has been the belief, or the feeling, or the superstition, which has been in place for about 18 months to two years now, that Iraqi oil will again flow in substantial quantities.

That belief or feeling or superstition was not the result of analysis: it was the result of News Creep. Analysts and economists (and even journalists) have been pointing out till they were blue in the face that the President of the United States of America cannot afford to lift sanctions against Iraq in an election year. Yet the market took the possibility seriously, probably holding crude prices a dollar or two below where they would otherwise have been for the past two years; OPEC took the possibility seriously, freezing its production ceiling at 24.52-mil b/d for a whole three years while it sat and waited for Iraq's return, and the oil companies took it seriously, and ran down their stocks.

Today, with Iraq's deal signed last week, I'm prepared to bet that 9 out of 10 price forecasts for the rest of 1996 predict sharply lower prices in the third and fourth quarters of the year. By sharply, let's say \$3-4/bbl. below current levels. Now these forecasts may very well be right. But I can't resist pointing out that:

1. The memorandum of understanding signed with Iraq does not even include an aid distribution plan. There is no guarantee the UN will agree to the plan which Iraq devises; and
2. The UN has not even begun drawing up procedures for dealing with the sale of Iraqi crude.

The implication of these two little facts is that it could be August or September before the UN is even ready to let the Iraqi exports start rolling. It will then be November or December before the exports crank up to half a million barrels a day. Is that really so much oil that it's worth the gamble of not re-stocking this year? I don't think so. I think my friend News Creep is at work.

Now, the origins of news distortion in the oil market are a little obscure. Things were not always this way. Or so some would argue.

What appears to have happened over the past 10 years or so, however, is that there has been a marked structural shift in the oil news media.

When I joined Platt's for the first time, in 1985, the oil news world was dominated by newsletter "bibles": *Petroleum Intelligence Weekly*, *The Middle East Economic Survey*, Platt's *Oilgram News*. These were the places where the industry looked for news, looked for insight and looked for scoops. At that time, as an aside, seven or eight major newspapers plus two or three TV networks were sending correspondents to OPEC meetings.

Eleven years on, the industry is dominated by four screen news services: Platt's *Global Alert*, Reuters, Dow-Jones Telerate and Knight-Ridder Financial. The weeklies and dailies retain an honorable place as bringers of analysis and in-depth reporting. The number of actual reporters at OPEC meetings has dropped by two thirds. But the volume of news *flowing* from each OPEC meeting has probably doubled.

The engine which drives the market, in other words, has radically changed.

There is, self-evidently, a link between this change and the development of the oil market's own unique approach to news. Screens by their nature are vehicles for sound byte-style news. Screen news is ephemeral; it is headline driven; and while all screen news services make much of their impartial, factual reporting, screen news is, in fact, potentially more manipulative than an analytical editorial.

It is a fact that most traders looking at a news screen read only the headline on 80 percent or 90 percent of the stories passing before them. As a result the desk editor's choice of words in composing the headline becomes all-important. The editor's decision to file a "newsflash" or not takes on godlike significance.

In the course of the Iraqi saga over the past few months, for example, I have had calls from irate traders demanding that we assign newsflash status to every single Iraq-related item. I have also had calls from equally irate traders demanding to know why we were putting out all these flashes.

The fact is that the news that passes across a screen is selective, and that very selectivity makes it far from impartial.

To make matters worse, the selective pressure on the editor comes directly from the market's desire to be

entertained by one-liners. At Platt's, I would claim, we do our utmost to resist the temptation to sensationalize. But even the soberest headline, on the wrong day, can trigger unlooked-for market response. If the traders are feeling bullish that day, then bullish is how your headlines are going to look to them. What develops is a potentially self-feeding cycle. The more focused the market becomes on a single issue, the more radically it is affected by news about that issue. And the more it is affected, the more news is generated, as a secondary wave of headlines comes over the hill talking about how Brent is up a dollar on reports of whatever the news may be.

This phenomenon, I believe, has contributed in quite a big way, to OPEC's inability to operate as an effective organization in recent years. The market's obsession with OPEC as a source of trading triggers has led to an extraordinary level of expectation attaching itself to each and every meeting OPEC holds. OPEC's frustration is that in recent years it has declared itself to be a guardian of market stability. But its very own meetings have unwittingly become the biggest single focus of instability around. Logically, it's best bet in this situation is to disband the organization altogether.

A vast reality gap has opened up between what OPEC does, the real-life effects of what it does, and what the market expects it to do. When it meets next week in Vienna, the weight of expectation is going to be huge. Everyone is waiting for OPEC to "do a thing" - anything - to take into account the return of Iraq to oil markets. Chances are, it will do nothing at all, and will argue persuasively that the demand fundamentals are such that nothing needs to be done. Will this impress the market? Nope.

The state of news as a component in the oil market, then, looks a little bleak from where I stand. On the one hand it has more influence over outright oil price levels than it ever used to. And on the other, it is suffering a debasement of its value as information.

But it's not all bad. Competition between news services is probably more intense now than at any time in history. News is delivered faster and in greater quantities than at any time before. The analysis is still there - even on the screen services. And because the raw news is reaching the user faster, the specialist weeklies and monthlies have the leisure to develop stories and get behind the scenes more than ever before.

Where we go next will, I think, depend on the market's appetite for news. In the minds of some, we face a brave new world of instant, cheap, Internet-based information which will elevate the role of news still further. Personally, I doubt it. There is such a thing as too much of a good thing. And if the decisionmakers of the oil industry set out to re-vamp their approach to trading, or if, in the next couple of years, we find ourselves locked into a permanent supply-side deficit, the need for news may evaporate as quickly as it has built.

A month or so ago, a Norwegian trader who shall be nameless came into the Platt's office in London. We got talking, and I asked him what he thought of Platt's *Global Alert*. "Oh," he said. "We had that on trial. But we canceled it. There was too much news."

FIRST ANNOUNCEMENT

FUTURE INTEGRATION OF THE BALTIC SEA STATES' GAS SUPPLY

November 28-29, 1996

Estonian Academy of Sciences, Tallinn, Estonia

Organized by:

Estonian Association for Energy Economics

Estonian Academy of Sciences

Finnish Academies of Technology

European Foundation for Cooperation in Energy Economics

The symposium will focus on the gas supply strategy in the Baltic Sea region, which includes gas policy, demand, pricing and transport, infrastructure, regulation and security of supply, cooperation in the gas market, etc.

The organizational structure of the symposium includes main presentations followed by panel discussions with the participation of representatives from gas companies, research and consulting institutions.

The organizing committee has asked Eurogas, Statoil, Dansk Olie and Gasproduktion A/S, Dansk Naturgas A/S and Ruhrgas to present basic papers on the perspectives of gas supply in Europe, the future of the gas sector of the Baltic States and the development of the Nordic gas grid.

Registration Fees: 280 DEM Non-Members
20% off IAEE Members

Registration fees include the symposium documents, a dinner, a lunch, coffee breaks, and transport from airport and hotels to the symposium venue. The language of the symposium is English.

A second announcement on the symposium program and details about hotel reservation, and payment of registration fees, will be sent to all registered participants before October 15, 1996.

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hydro and nuclear, combined in this analysis, will grow fastest, at 2.3 percent. However, there are inherent regional biases in these figures, with the former CPEs inflating the figures for hydro/nuclear, at 3.5 percent, and the OECD and DCs majoring in gas, at 2.2 and 4.0 percent respectively. Relatively speaking, oil demand growth fares badly in the OECD, but performs quite well in the rest of the world. Weak growth is expected for gas in the former CPEs and for hydro/nuclear in the OECD.

However, every energy source will experience an absolute rise in demand, in global terms, during this period. At the end of it, oil's share of the world energy mix will still be the largest, at 39 percent, well above 29 percent for coal, 21 percent for gas and 11 percent for hydro/nuclear.

Thus, our reference case projections indicate a steadily evolving world energy scenario, with continued all-around growth, pronounced regional characteristics and only marginal changes in the world energy mix in the final years of the 20th century. One cannot really expect much more than this, in the way of change, in a comparatively short period, unless there is a major political or economic upheaval or a natural catastrophe - and who has the vision to predict these?

As we can see from the above figures, most of the energy the world uses today is based on finite resources. These are the major commercial fossil fuels - oil, gas and coal. We can only use them once. However abundant one believes these resources to be - whether they have reserves-to-production ratios of around 50 years or, with improved technology, 60 or 70 years - the fact remains that they will not be here forever. It is the responsibility of all of us to optimize our use of them while they are still around in commercial quantities. In this instance, I am referring specifically to the oil industry, though a similar situation prevails with the other fossil fuels.

The situation is somewhat different for the other two major commercial forms, nuclear and hydro. Nuclear has been heavily discredited in recent years on the grounds of safety and cost. I do not believe the present forms of nuclear fission will ever regain the full confidence of the public in many parts of the world. Hydro has obvious geographical restrictions, as well as serious environmental shortcomings. There are no other renewables around at the present time which have the potential for commercial viability on a large scale in the foreseeable future.

The overriding message that comes from all of this is the notion of interdependence in the energy world. It is a world full of requirements and availability. The principal issue is to decide how to match one to the other. Choices must be made, both as part of our daily routine and with the future in mind. There is easily enough energy supply around in its diverse forms to meet the world's needs - certainly for as long as any reader is going to be alive. The next two or three generations have little need to worry, either. By the very long term, the world is expected to have developed other forms to commercially viable levels. Here we are stretching our sights to the 22nd century, and not the next five years, the period with which we here are mainly concerned.

In OPEC, we take the issue of interdependence in

the international oil industry very seriously. It is enshrined in the OPEC Statute, which dates from the earliest days of our Organization, three and a half decades ago. Our Statute is built upon the principle of achieving lasting order and stability in the oil market. It envisages producers, consumers and investors performing their respective roles and receiving equitable returns. However, to reap the fruits of interdependence, there must be wholehearted cooperation among these parties. This has been our overriding message since the early 1980s. Much progress has been made in recent years.

The pinnacle of this progress is an event which has become an annual occurrence during the course of the 1990s. This is the International Oil Producer-Consumer Conference. The first of these meetings, held in Paris in 1991, owed much of its impetus to persistent pressure by OPEC over the years to bring together, under one roof, many of the oil industry's leading officials and experts. The aim was to discuss leading topical issues affecting the smooth operation of the industry. By last year, when the Conference was held in an OPEC member country, Venezuela, for the first time, the agenda had broadened significantly although it still did not include what we consider to be the most important issue of all, oil pricing and production.

This issue is best expressed in the context of the following anomaly - the global imbalance between reserve strength and output. OPEC's member countries hold three-quarters of the world's proven crude oil reserves, and yet account for only two-fifths of its output. For as long as such fundamental anomalies remain, the whole prospect of a steady, untroubled evolution of the international oil market is compromised.

In the light of all this, OPEC's policy regarding world energy interdependence is clear. As an Organization which has had more than its fair share of ups and downs in the oil market in recent decades, we seek to encourage dialogue and cooperation throughout the energy industry. This is an indispensable requirement if we are to benefit the most from the world's finite energy resources in the future. We play our part in our particular arena, the international oil market, through our production agreements, our monitoring of day-to-day developments, our specialist research facilities and our general involvement in energy fora. But we can only go so far, even in the oil industry, despite our overwhelming reserve strength. We also need the constant, unwavering support of the other main parties. Once order and stability become established in the oil market, this will provide the foundation for a more robust and effective global energy industry.

In the final analysis, therefore, there is no escaping the fact that we all have a part to play in bringing about an orderly supply of energy to the world over the coming years and into the 21st century. Mankind cannot afford to have its energy supply disrupted by sectoral interests, as has happened so often in the past. There are other major international issues to be resolved, such as the escalating world population, which needs to be fed and housed and kept warm. We must all strive to achieve an optimal energy policy into the 21st century, that satisfies our individual requirements, as well as being beneficial to the world at large.