

Energy and Security: Strategies for Europe

By

**Robert E. Ebel
Chairman, Energy Program
Center for Strategic and International Studies
Washington, D. C.**

Berlin, February 28, 2005

In today's context, national security and energy security are so closely intertwined that it is inconceivable we would consider them as separate issues.

First, what do we mean by national security? I would suggest that the best answer, at least in my judgment, was provided a number of years ago by the eminent American diplomat, George Kennan, who offered perhaps the least complicated definition: "(national security means) the continued ability of this country to pursue its internal life without serious interference."

What then is meant by energy security? For the American consumer and, I suspect, consumers everywhere, the answer is simple. He has only two concerns: price and availability. If the price is acceptable and he can purchase as much gasoline or fuel oil as he would like, then, what is the problem, he might ask. Certainly, the consumer cares little if at all as to where the oil he consumes might come from. Those are issues deferred to the wisdom of governments.

But importing governments hold a view that differs from consumers. Policies adopted by importing governments stress security of supply through diversity of supply, diversity among the kinds of fuels we consume, and as well as how the oil and gas are delivered to our markets.

The energy commissioner of the European Union has indicated that he will place security of energy supply at the center of his efforts. He has noted that higher energy prices and the growing appetite for oil and gas from emerging economies presented a substantially changed situation compared with five years ago. The EU approach in the past has been to work to manage the risks associated with import dependency. Will that approach in turn be forced to change?

Oil exporting governments today seek security of markets. Why should we invest in expansion of our oil producing capacity, they ask, if we are uncertain as to whether there will be a market for any new oil. Adherence to this philosophy can only ensure a continued tight market and price volatility.

Does diversity of supply provide the assurances we seek? Not at all, because diversity of supply does not protect us from price volatility. Under today's circumstances, we are just as vulnerable, if not more so, to its effects.

We need remind ourselves from time to time that neither the United States nor Europe stand in isolation from the world oil market. We are vulnerable, as are all oil exporting and importing countries, to any event, anywhere, anytime, that impacts on supply or demand.

When the price of oil goes up, it goes up everywhere. All consumers are hit, the poorer, importing developing countries the hardest. When prices decline, exporters everywhere are hit, again the developing exporting countries the hardest.

The question arises then, what could we do, what should we do, so as to be able to place our oil—and natural gas future—in our own hands?

2004—a Year of Surprises

The year 2004 was a year of surprises for the world oil sector. Surprises that came in the form of sharply underestimated oil demand growth in China, and unexpected robust demand in the United States. At the same time, a number of other events, real or anticipated, played out in a way that equally pressured oil **supply**.

The market of course reacts to real events that impact directly and immediately on supply and demand. And the market equally reacts to perceptions of an event that **might** take place, an event that would affect either supply or demand. It does not matter.

Just what supply-related factors were in play in 2004?

- Political uncertainties in Venezuela,
- Civil war and strikes in Nigeria,
- The unfulfilled promise of Iraq,
- Problems in Russia, and
- Terrorist acts in Saudi Arabia.

Then, along came a hurricane in the Gulf of Mexico, taking as much oil off the market as all supply-related factors combined.

Yet, not all these factors led to reduced supply. For example, oil exports from Russia and Saudi Arabia continued to increase, despite concerns that the Yukos affair might translate into reduced supplies, or that a loss of Saudi oil, for whatever the reason, would be impossible to offset by expanded production elsewhere.

Indeed, it was our judgment that world oil production had been sufficient to meet world oil demand, but only barely. Rather, it was the fear—the “fear factor” we all talked about—that something might happen to disturb the tenuous balance between oil supply and demand that helped move prices above and beyond what the market fundamentals would seem to indicate.

Additionally, those factors just referenced had to be weighed against:

- The disappearance of spare producing capacity worldwide,
- Infrastructure limitations, and the need to protect that infrastructure against terrorist acts,
- Cutbacks in oil exploration and development expenditures by the international oil companies,
- Oil reserve writeoffs,
- Minimal working inventories, and
- Market influences attributable to speculators.

Now, what do all these factors, all these influences have in common? Simply that they were, and remain, outside our control and, with only minor exception, steps that might be taken to resolve them are essentially outside our control as well.

Maintaining working inventories is costly, and companies have adopted the “just-in-time” approach to satisfying consumer demand. This approach is acceptable if nothing intrudes to disrupt supplies or to spike demand. But a pipeline break, a refinery fire, a cold wave—are the kinds of incidents that upset the just-in-time approach and lead to short-term supply shortages.

The loss of spare producing capacity has been particularly damaging. Spare producing capacity can be called upon to meet unexpected growth in demand or to cover supply interruptions, manmade or otherwise. Today, most of the worldwide spare producing capacity is in the hands of Saudi Arabia, and even here that measure has fallen to not much more than 1.5 to 2 million b/d. To put that volume in proper perspective, last year the world consumed about 84 million barrels of oil every day.

I know of no nation, other than Saudi Arabia, that sets out to deliberately develop spare producing capacity. For most exporters, spare producing capacity is a frozen asset, not providing a return on investment.

But Saudi Arabia does not invest to develop spare producing capacity out of the goodness of its heart. No, its spare producing capacity is there to further the country’s national interests, to support its political and financial goals.

Tradeoffs

Every energy decision you and I make as individual consumers, every energy-related decision taken by our governments, has a tradeoff, sometimes knowingly, sometimes not. These tradeoffs carry their own costs and risks. The public needs to understand that there is no energy option, and that includes renewable forms of energy, that can be described as risk or cost-free.

Do we ever stop to consider whether these costs and risks justify actions taken?

Let me give you an example of what I have in mind. Some 20% of the electricity generated in the United States comes from nuclear electric power plants. But, about 50% of the fuel burned in these plants comes from Russia. Why would we want to put ourselves in such a vulnerable position? Is there a tradeoff that justifies this dependency?

There is.

- The fuel comes from the conversion of Russian nuclear warheads.
- To date, more than 7,000 nuclear warheads have been eliminated.

Is this tradeoff in our national interest? I believe it is.

Successful NIMBYism may impose a feel-good mantle on those who come together to block the construction of an energy-related project. But we are now confronted with the real impact of NIMBYism: a shortage of essential energy infrastructure, with that shortage in its own way propping up high prices. Is this tradeoff acceptable, is it in our national interests?

If for environmental reasons we cannot drill in geologically attractive but unexplored areas, what is the tradeoff? Confronted with rising demand, we turn to imports. We find ourselves increasingly reliant on the ability and willingness of others to meet our rising demand.

Population and prosperity are among the key drivers of oil demand. World population increases annually, more automobiles show up on the roads annually. In the U.S. alone there are some 240 million motor vehicles on the road, supported by 170,000 retail service stations. Miles driven, for business and pleasure, reflect the state of our economy, the state of our mind.

As we pass these 170,000 service stations, what do we see? The latest price in tall, bold numbers, and that does have a strong psychological impact on the consumer. I know of no other essential commodity where the daily price is posted so visibly, and at so many sites. There is no escape.

What is This “New Game?”

As the year 2004 unfolded we noted the appearance of a new “oil game,” centered on access to oil supplies. Access drives private and national oil company investment programs alike. Both prowl the world in search of deals that offer the opportunity to replace volumes presently marketed and to provide volumes to meet anticipated future requirements.

But can private companies compete under circumstances where the playing field is not level? National oil companies, such as those of China and India, can and do strike deals with host governments that often involve political commitments, sometimes hidden, sometimes not, and that adds a worrisome element.

Competition should lead to a more rapid development of new oil supplies but competition for oil likely will also lead to higher prices, as host governments can play one potential investor off against another, thus raising entry stakes.

When the sustainability of growing demand and conventional supply is measured against the background of worsening environmental conditions and changing geopolitics, the perception emerges, however slowly, that the global oil game may well be changing and that the consumer fuels market could be preparing for an evolution.

Why the particular emphasis today on access? OPEC, owners of the bulk of world oil reserves, may well move cautiously in the years ahead, developing new producing capacity only in line with their own contentious view of future market requirements, thus likely creating conditions for an oil supply-demand balance that continually supports a high oil price structure.

The oil and gas world of 2005 is very much different from that of 2000. Can we successfully meet this challenge?

An Analogy

There is an analogy we might make, comparing the relationship between Canada and the United States, and the relationship between Russia and Europe.

Canada is the leading foreign supplier of oil to the U.S. market, having provided one-sixth of oil imports oil last year, as well as one-sixth of the natural gas the U.S. consumed. But, production of conventional crude oil in Canada is declining. The oil future of Canada rests with development of its oil sands. But development requires considerable volumes of natural gas, and this demand reduces exportable surpluses.

As the U.S. contemplates the prospect of reduced oil and gas supplies from Canada, what to do? The present approach centers on seeking imports from other suppliers, with natural gas to be imported in the form of LNG. In other words, solve the problem by expanding import reliance.

European reliance on Russian oil and gas is well-known. But those who watch Russia closely are noting that the relative growth in oil production has been declining rather sharply since last September. Additionally, natural gas production appears to have stagnated.

Can current growth rates in **Russian** oil production and exports be sustained? Now surpassing Saudi Arabia in terms of daily oil production—but only because of Saudi adherence to reduced quotas—will the current efforts of President Putin to return much of the oil sector to state control have a dampening effect on production and export levels and prospects for the country as a land of opportunity for IOC investment?

What has caused this slowdown? Overproduction of existing fields? Yes. Too little exploration? Yes. High taxes? Yes. Shortage of pipeline capacity? Yes. Kremlin interference? Yes.

The question arises, can substantial new supplies be developed in a timely fashion?

Where is the future of Russian oil and gas to be found? In East Siberia and offshore, that is, offshore Sakhalin Island and offshore in the Barents Sea, plus the inhospitable Yamal Peninsula. What will it take to develop these prospective regions? Far more investment dollars, far more offshore experience, and far more managerial knowhow than that currently available to Russia.

Yet, recent government actions would imply that the welcome mat been removed and taken inside.

The hoped-for merger between Gazprom and Rosneft, now stalled, must be distracting to Gazprom leadership. Might this distraction impact on the North European Pipeline, scheduled to become operational in 2010? Timely availability is essential if Germany and other importing countries are to have access to new gas supplies needed to cover growing demand.

Shtokman natural gas stands behind that pipeline but Gazprom and Moscow envisage Shtokman as the key to providing LNG for North American markets, particularly the United States. But time is of the essence, if a position in that market is to be secured.

Time has not been friendly to Shtokman in the past. Six wells were drilled at Shtokman in 1988 and a long-term plan called for development of the field in 2003-2005. Now, LNG based on Shtokman is envisaged by 2011, trying to put that project on the fast track, so as to secure a position in the US market ahead of the competition. But, in my judgment there may not be enough time to meet that goal.

Western observers who follow Gazprom closely are very much concerned about its high—and growing—debt and its continually rising costs of operations. It is not an efficient, transparent company by any measure.

More realistic plans call for Gazprom producing 560 bcm by 2010 and around 580 bcm by 2020, not much gain over the 544 bcm produced in 2004. Most of the scheduled new gas will go to offsetting declines at mature fields, with not much left over to add to supply.

Although Russia has not forgotten its European markets, Moscow has turned around and is looking eastward, at the growing markets of China and Southeast Asia. These markets seek diversity of supply and as well diversity in how the oil and gas is delivered, and Russia is responding as best it can. Will this diversion affect Russia's more traditional markets?

At the same time, what stands between Russia and Europe? Ukraine. Will Ukraine always enjoy good political relationships with Russia so that oil and gas flows crossing its borders enroute to customers in Europe will not be disturbed?

Russia has not, with only minor exception, played politics with the oil and gas it has to sell. But, having spent my professional career in Washington, I learned some time ago never to say “never.”

An Alternative Approach

What is the best means to achieve a sustainable energy future? What specific policy options have the best chance for achieving this objective?

Specific demand management recommendations should be adopted, including the use of mandates, commercial incentives, and joint government-industry cooperation and coordination.

- Change consumption patterns,
- Accelerate development and application of new technologies promoting clean fuels,
- Streamline permitting and siting regulations, and
- Educate the consumer.

What should be done that would enhance the availability of secure, affordable and environmentally benign domestic and foreign fuels? Having already addressed the issue of access, what policies should be encouraged?

- Accelerate technology development and sharing that would lead to enhanced recovery and cleaner energy use worldwide,
- Encourage alternative and nonconventional energy forms and their integration into a comprehensive energy delivery system,
- Reassess the management and use of inventories, and
- Employ international diplomacy as a tool supporting the preceding options.

Finally, the United States has a unique opportunity to re-engage in the global climate issue, an opportunity that should not be missed.

Concluding Remarks

The events of the past year have once again focused attention on the critical role that energy plays in the global economy. Given this role, the question then arises as to whether or not energy supply and demand should be managed differently than in the past, as part of a larger effort to return to the consumer acceptable control over his energy future. A healthy economy, supportive of a life style that many have come not only to enjoy, but to expect, should reflect an energy supply that at once is available, affordable, secure, and environmentally benign. Are these criteria beyond reach, or are they just beyond reach of current energy policy?

Our world of energy is changing, and moving in a direction that further complicates the tasks that lie ahead. If we do not respond appropriately to these challenges, we risk being confronted by a future that is increasingly uncertain and defined by factors beyond our control or influence.

During the next twenty years, most forecasts predict that the world will be relying on the same forms of energy that fueled developments of the past century—oil, natural gas, coal, and nuclear power, plus a broad grouping of renewables.

But, against this constancy, just what key changes lie ahead?

- Dramatic change is projected in the geography of demand for energy, as the Asia-Pacific region alone is to account for 40 percent of the total world demand increase out to the year 2025.
- Fully one-half the world consumption of oil is dedicated to transportation uses. Unless and until acceptable fuel substitutes become available to the transportation sector, the prospect for any meaningful reduction in energy demand is limited. It is the *absence of prospect for change* that is the key.
- The United States and Europe, and indeed the industrialized world, in the coming years will find themselves increasingly dependent on imported oil and natural gas. But where will these imports come from? The developing world, where a rising dependency cannot be seen as acceptable in terms of national interests.
- The emergence of new diplomatic regional and international commercial alliances may mark the beginnings of a “new game” in the geopolitics of oil.

This new game could devolve into competition for supplies, a competition that favors national oil companies, to the detriment of others.

In sum, I have described a future that would seem to lie beyond our control, a future that rests in the hands of others. What will it take to wrest that control away?

It will take nothing more than the political will of consumers and their governments to accept actions and programs that have meaning on both the supply and demand sides of the equation. But we seem to have lost that political will.

Where is this political will, where has it gone, and how might we get it back?