

BDI/BIAC Roundtable on Energy

Long-Term Energy Security in the Context of High Energy Prices

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Background Paper

I. Introduction

Energy is the motor of economic growth and social development. Both, growth and development can be attained only if secure, reliable and affordable energy supplies are ensured. Therefore, energy is, and remains, a strategic commodity, that needs to be given due attention, especially in the face of growing global energy demand.

World energy consumption is expected to increase a further 50% by 2030, reaching 16.3 billion tonnes of oil equivalent – 5.5 billion toe more than today. Rapidly growing energy demand, particularly from China, unmet electricity needs of the 1.6 billion people in developing countries still lacking access to electricity, combined with population growth, have triggered this explosion in demand. As a result market competition will intensify, implying that oil prices - already high – are expected to rise further.

High oil prices have already had negative effects on the global economy as a whole. They have contributed to the economic downturn in 2000–2001 and are now hampering the expected cyclical upturn. High oil prices do not only cause inflation in oil importing countries, but also lower investment and non-oil demand whilst increasing input costs, resulting in exacerbated budget-deficit problems.

The adverse impact of high oil prices on the economy can best be illustrated by measuring their impact on GDP. According to the 2004 International Energy Agency analysis, a sustained \$ 10 per barrel increase in oil prices would result in OECD as a whole losing 0.4 % of GDP in the first and second years of higher prices. High energy prices point to the critical significance of addressing the challenges facing the energy sector today as well as their impact on the overall investment environment.

II. Implication for OECD Economies

Addressing the challenge of increased energy demand combined with consistently high oil prices in the context of globally underdeveloped energy systems is a complex task. It requires a multifaceted approach, taking into account the interest of suppliers, consumers, and governments alike. This poses a number of implications for OECD economies, which should be kept in mind when discussing and formulating strategies for long-term energy security.

Keeping all Energy Options Open

Energy security significantly depends on the diversification of energy resources and hence a variety of options will be necessary to meet the needs of both social and economic development. Lately, much attention has been given to renewable energy options, such as bio fuels. However, it would be unrealistic to anticipate a sudden and immediate changeover from the existing fossil fuel based system to a new one.

National circumstances and policies will determine the energy mix of fuels necessary for energy security and sustainable economic growth. Having said this though, a balance between energy sources is vital to avoid exposure to sudden energy supply disruptions. Governments should avoid choosing “winners” and “losers” among technologies, but instead consider investment requirements for an appropriate range of options in the energy mix to ensure long-term energy security.

Addressing the Sustainable Development Challenge

As levels of energy consumptions increase, the challenge of reaping the economic and social benefits without depriving the environment increases. Trade-offs between the three pillars of sustainable development - economic, social and environmental – need to be considered to determine the role various energy options should play in a country’s energy mix.

Of course, countries will pursue different paths towards sustainable development depending on their state of development, priorities and available resource mix. The best energy option will emerge, however, when geographical borders have the least impact on reaching the most economic and sustainable solutions. Regardless of the path chosen, it is vital that climate and energy policies are integrated, long-term, market oriented, cost effective as well as harmonious, fostering innovation and the commercialization of technologies.

Meeting the Investment Challenges

Whilst there is no immediate shortage of oil and gas resources, substantial investments in modern technologies will be absolutely necessary to secure long-term energy supply at an affordable price. The 2003 World Energy Investment Outlook states, that to meet projected demand growth of 1.7% per year over the next three decades, US \$ 16 trillion need to be invested in global energy-supply infrastructure. This equals approximately 1% of projected global GDP and 4.5% of total investment on average (the share of energy investment in GDP varies significantly across region, being much higher in developing than in OECD countries). Half of the investment will be required to replace existing and future capacity, the other to meet increase in demand.

Therefore, whilst OECD countries will face considerable challenges to ensure their own secure energy supply and the transmission of distribution reliability, the most daunting challenge will be to finance the necessary investment in developing countries with favourable investment requirements. Financing of the energy investment cannot be taken for granted and the key question will be whether conditions in the energy sector are right to attract the necessary investment with adequate incentives for investors.

III. Prospects in the Middle East and Northern Africa (MENA)¹

MENA's vast oil and gas resources combined with low incremental production costs are critical to meeting future energy needs and ensuring long-term energy security. According to the IEA World Energy Outlook 2005, MENA's share of world oil production will rise from 35% in 2004 to 44% in 2030. Almost all the increase is expected to derive from the Middle East. Additionally, MENA oil- and gas-export revenues, which surged in the last few years, are expected to remain high. Hence, insufficient investment in the region would radically alter the global energy balance.

Oil importing countries are, therefore, heavily reliant on the MENA region as well as other parts of the world that have rich resources for their energy security. There is, however, much uncertainty about the pace at which MENA's resources will be developed. Only a handful of MENA countries have so far announced plans for modernising and expanding their energy production and exports, which in the face of state budgetary pressures, high unemployment rates, foreign investment restrictions, production policies and potential geological constraints, raises serious concerns over the availability of exports to world markets and hence to long-term energy security.

In this context, both energy consumers and energy producers would benefit from increasing cooperation considering their interdependence. The most pressing challenge will be to ensure good governance as well as to design and implement appropriate macroeconomic policies to ensure that resources are managed effectively, especially in regard to investment. At the moment, investment requirements are largely met by international resources of national oil companies, trapping international capital markets and foreign direct investment. Most MENA countries prohibit foreign equity participation in the upstream oil sector and only some allow production-sharing arrangements, restricting investment opportunities in the region. Innovative investment arrangements in the region should, therefore, be developed further.

IV. What Business Needs?

The investment challenge both in the MENA region and globally will require policy changes, which are an integral part of wider structural reform programs designed to attract investment. Following, facets of good governance with particular relevance to attracting and supporting energy investment will be outlined.

¹ The MENA region includes approximately 22 states, with a combined population of nearly 300 million, each with different political, economic, demographic, and security conditions and needs. It is divided into at least four sub regions including the Maghreb (Mauritania, Morocco, Nigeria, Libya, and Tunisia): the Levant and the Arab/Israeli confrontation states (Egypt, Israel, Jordan, Lebanon, and Syria): the Gulf (Iran, Iraq, Kuwait, Bahrain, Qatar, Saudi Arabia, the UAE, and Oman) and the Red Sea states (Yemen, Sudan, and Somalia).

1. Political and legal stability and strong institutions need to be in tune with the long-term investment horizon of the energy sector. On the one hand, political stability promotes consistent policy frameworks to improve public governance, which in turn profoundly affects the planning basis for business development, investment decisions, and cost-recovery in the longer term. On the other, legal stability enhances the quality of the business and investment environment and provides confidence to investors. A realisable regulatory and legal redress process is, therefore, critical to producing “regulatory risks”, which tend to prevail particularly in developing countries. Of course, full regulatory certainty cannot be guaranteed, nor is it always desirable.

2. Public governance and practices require improvements through regulatory reform and alternatives to burdensome command and control approaches. Regulatory reform can be a daunting process, and there are relatively few incentives for government officials to be innovative in regulatory approaches. However, outdated regulations tend to contribute to a bureaucratic, less efficient and less user-friendly environment, often inhibiting the potential of private sector or foreign direct investment. In this context, due attention should be given to free and open markets, market solutions, cost/benefit analyses and the rule of law.

3. Transparency can potentially increase buy-in and efficiency. The unique characteristics of the energy industry (long term, capital intensive investment and commercial activities, price and revenue flows fluctuations) emphasise the importance of transparency. Deliberate non-transparent regulatory systems serve as a significant barrier to private investment. Also, energy sector investors face a high risk of policy reversals and policy uncertainties in a number of developing countries, implying that transparency does not only need to be addressed through national laws and regulations but also through international cooperation.

4. Eliminating bribery and corruption would enable the development of trust, accountability and enhance development of limited financial resources. Anti corruption and bribery efforts are particularly important in the energy industry, due to its unique relationship with governments. Bribery often constitutes an inhibiting barrier for business activity. Governments, therefore, need to assist companies in the prevention of bribe solicitation as well as prosecution. In addition, inter-governmental initiatives against bribery and corruption, such as the Anti-Bribery Conventions of the OECD, could play an important role.

V. Conclusion

While governments have a crucial role to play in setting predictable policy and adequate framework conditions for investment in the energy sector, business is indispensable in ensuring a secure and reliable energy system for all. Long-term energy security in the context of high energy prices can only be achieved through close public-private dialogue. The roles of governments and businesses, therefore, need to be clearly defined to address the challenge of how economies can provide and use energy more efficiently with reduced environmental impacts, while maintaining economic growth and prosperity. The whole of society will only benefit when governments and industry work together co-operatively and effectively.