



International Chamber of Commerce

The world business organization

Policy statement

Energy security: a world business perspective

Prepared by the Commission on Environment & Energy

Key messages

Energy is an essential input for businesses of every size, whether domestic or international, for energy suppliers, the transport industries, energy-intensive industry and service providers. To business, energy security means confidence in its ongoing ability to access reliable and affordable energy, wherever it operates. Secure and reliable energy supply and infrastructure impacts the feasibility and costs of doing business from perspectives of competitiveness and productivity. Energy security is a vital consideration, not only for day-to-day operations, but also for long-term investment. This paper provides views of the international business community concerning energy security, both as regards the role of the private sector and the importance of sound governmental policy.

Key issues include:

- In today's globalized world, with a highly non-uniform distribution of energy resources and market demands, diversity of supply, open markets and political interdependence are essential for energy security at the global level.
- Energy security, economic growth and development are interwoven, so energy and development policies should be addressed in an integrated way.
- Governments should establish stable, long-term energy policy, recognizing the need for open, competitive markets supported by reliable legal, fiscal and regulatory frameworks to encourage energy investment and innovation that responds to and marshals market forces.
- Reliable infrastructure and transfer systems, such as electricity transmission networks and gas pipeline networks are indispensable to energy security.

To meet growing demand, all energy options should be kept open. Public policy should establish criteria and guidelines for safe, cleaner energy supply and responsible use of resources.

- Policy should support market-based innovation to promote energy security through diversification of supply and introduction of more efficient supply and end-use

technologies. Strong research, development and deployment policies and programmes must be fostered and maintained.

- National and international governance infrastructure should enable a global open market trading system in energy, energy feedstocks, and energy intensive goods.
- In addition to governments' inter-relationships and policies, cooperation between governments and the private sector is important to energy security.

The challenge of energy security

Energy demand is increasing around the world to meet society's needs and aspirations. There is a compelling need to increase access to modern energy services for the two billion people without access today. In addressing these issues, energy security is receiving increasing attention. Energy security and development are interwoven, but energy security may mean different things in different countries, in different industrial sectors and with regard to different energy sources. At the national level, energy security is impacted by, amongst other things, the extent and diversity of domestic resources, stability and capacity for energy imports, regulatory frameworks and the stage of technological development. It is important that international policies and frameworks to promote energy security recognize and complement national circumstances.

In a similar vein, international cooperation to promote energy security and environmental protection should be mutually reinforcing. In a complex, inter-connected, increasingly globalized energy market, there are few clear cut answers to these questions, with decision making and practices in one country having transboundary impacts on markets, investments and investment climates. Likewise, there are supply- and value- chain impacts, such as those from energy and transport sectors to energy consuming companies. Business and industry are particularly concerned about the potential impacts of future energy prices, which can impact investment decisions, operational conditions, and competitiveness.

Markets and related investment decisions are also impacted by international agreements such as the United Nations Framework Convention on Climate Change and their national implementation. The differing approaches that have been adopted by nations to combat the risks of climate change will add another layer of complex considerations to enhanced energy security. Such international frameworks have the potential to animate positive developments, such as technology innovation and transfer that may also be beneficial to national and international energy security.

The diversity of energy resources, ownership and control and the economics of access and their impact on energy security are important considerations in that regard. The commercial viability of accessing resources will vary depending on factors such as global energy prices, government policies, and technological developments. While estimates of global energy resources are available, the time frame over which they will be consumed will depend on market demands, including the efficiency with which resources are utilised. Indeed, even the degree to which resources can be estimated and converted into commercially viable products will depend on

future investments.

Technological advancements will have a critical impact on which energy resources can be utilised, how long they will last and how cost competitive they are over time. All of these issues are important considerations for energy security and for business when making energy investment decisions. Future technological developments will also be critical in areas such as resource exploration, extraction and transport. Transition technologies or future major energy technologies, such as carbon capture and storage, advanced nuclear technologies, hydrogen utilization, biomass and solar technology must also be fostered. Public support for fundamental pre-commercial research will be essential.

Business' role in energy security

Business plays a crucial role in energy security. The private sector provides significant investment and produces, transports and distributes energy to end users, and is a significant energy user itself. Business' ability to generate economic growth and its associated benefits (basic infrastructure development, job creation, technology transfer, sustainable development and in some cases regional benefits) depends on access to reliable, affordable energy. Business provides solutions to energy security challenges through research and development of new energy-relevant technologies and subsequent commercialization, deployment and transfer. Business operates most effectively to meet demand in open, competitive markets. This is true not only in local markets driven by individual consumers, but also in today's increasingly global energy markets. Business exploration for energy supplies, energy efficiency and conservation measures are all important contributions to balancing future energy supply and demand. Technology innovation can also assist with adapting technologies for specific local or regional conditions. New technologies will continue to improve performance, especially when tailored for specific local or regional conditions. In order to develop these new technologies, significant investment and enabling framework conditions are needed to incentivise business and promote the global dissemination of cleaner and more efficient technologies.

The energy sector – and energy security -- involve long-term considerations. Project planning and implementation often require decades and investments in facilities and infrastructure typically have economic lifetimes of several decades. Decades of investment may be required before new technologies can be implemented at a scale that significantly impacts the global energy base. Because market demands and energy resources are unevenly distributed, fostering diversity of supply and energy interdependence in open market economies across the world is the most effective and efficient way to marshal business investment to promote secure and reliable energy supplies.

Regulatory and policy issues

Reliable legal, fiscal and regulatory framework conditions will encourage investment and technology transfer that contribute to energy security. The importance of honouring contracts, protection of intellectual and real property, rule of law and even-handed enforcement are

fundamental to well-functioning markets. Engagement and partnerships with the private sector in formulating policy and taking action is a critical element for success. In this regard, concerted efforts to prevent corruption, solicitation and bribery in the energy industry remain a priority. The business community sees a strong need to eliminate acts of bribery and corruption as a shared responsibility. Governments have an important role to play in assisting companies in the prevention of bribe solicitation as well as in prosecuting offenders. ICC is strongly involved in raising awareness and promoting good practices in this area.

Appropriate long-term energy policy should avoid short term thinking that could undermine energy security considerations. It is also critical to fully understand the impacts of energy policy on the entire value chain, including indirect and direct impacts on the economy and on regional and international relations. This must include consideration of the impacts of national energy policy adopted by net energy exporting countries upon net importing countries. Where energy related installations could be vulnerable to natural disasters or other catastrophes, coordinated contingency planning and disaster management is vital to governments and business. This will require on-going and extensive discussion with the private sector and in some cases, international cooperation and planning, to leverage efforts, and ensure that recovery is as quick as possible.

Challenges for energy investments

Open free markets provide the best conditions for investment in and provision of energy. Governments should also promote and enable investments in energy by leveraging Official Development Assistance (ODA), promoting technological cooperation and exploring other innovative arrangements that would prioritize and support energy for sustainable development. In countries with limited capital, and specifically for least developed countries, the role of foreign direct investment should be complemented by intergovernmental organisation funding (World Bank, GEF, UN agencies etc.), ODA, and local private funds, such as the European Investment Bank.

The IEA (World Energy Outlook, 2006) estimates that energy investments of just over 20 trillion US dollars will be required between 2005 and 2030. More than half of this investment will be in developing countries to develop new and maintain existing infrastructure. In developed countries, the main challenge lies in the gradual renewal of existing energy infrastructure. Market-oriented policies can complement other regulatory and policy approaches. Tax incentives, where appropriate, should promote energy for sustainable development.

Measures to increase energy security

Diversification of the energy mix will increase energy security. Both geographical and resource diversification are critical for security. To meet growing demand, no technologies or energy sources should be excluded; innovation may provide solutions that overcome barriers that limit the use of some technologies today. Public policy should establish criteria and guidelines for safe and environmentally responsible production and use of energy, and suppliers should

innovate and compete to meet requirements in the most effective way.

Research offers the promise of innovative technologies that promote energy security, for example, through efficiency gains and diversification of energy supply sources. Governments have a role not only in providing incentives to conduct such research, but also through education and capacity building in universities to maintain the supply chain of well-trained scientists and engineers. Governments can also enhance the ability of markets to deploy new technologies through investment and technology transfer. Strong long-term energy technology research, development and deployment should be pursued by both governments and industry in the pursuit of more sustainable future energy systems.

Interconnected energy systems, both primary and secondary, also reduce risk and increases flexibility. Secure and reliable infrastructure and transport mechanisms and associated policy and regulation are needed and long term contractual arrangements may be required. In addition, co-operation between governments and transmission system operators (TSOs) is essential for energy security as well as fulfilment of agreements under all circumstances, even in crises situations.

Wise and efficient energy use will contribute to energy security by reducing energy demand, reducing energy needs along the supply chain and thus extending resource life. Consumer understanding and reaction through market signals are powerful forces and key factors of success for addressing the energy challenge. The way consumers use energy does impact significantly on the supply side, and businesses have an important role to play in this evolution.

Summary

Ensuring geographical and resource diversity of energy supplies strengthens economies and overall energy security through energy interdependence. Removing trade barriers, improving access to natural resources, and opening markets to free competition will help minimize potential disruptions. The most effective policies create a legal and regulatory framework that attracts investment, encourages technology transfer, stimulates open competition, and capitalizes on the force of the free markets. Advancements in technology will continue to improve global energy security, and will also lessen the impact of energy-related activities on the environment.

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About ICC

ICC is the world business organization, a representative body that speaks with authority on behalf of enterprises from all sectors in every part of the world. The fundamental mission of ICC is to promote an open international trade and investment system and the market economy, and to help business corporations meet the challenges and opportunities of globalization. Business leaders and experts drawn from ICC's global membership establish the business stance on broad issues of trade and investment policy as well as on vital technical subjects. ICC was founded in 1919. Today it groups thousands of member companies and associations from 130 countries.