International Energy Forum Secretariat

IEF – IFP Symposium

Enhancing Global Energy Security, Role of Technology in the Petroleum Sector

15 December 2008, Riyadh, Saudi Arabia

Concluding Statement by IEF Secretariat and IFP

The IEF-IFP symposium was held in Riyadh, 15 December 2008, with the participation of representatives from oil companies, technology and service providers, international organizations and representatives from producing and consuming countries, from developed and developing countries. “Enhancing global energy security, role of technology in the petroleum sector” was the central theme.

This symposium is held following the recommendations of the 11th IEF which concluded that “a sustainable energy future implies efficiency improvements and technological advances in both production and consumption of fossil fuels” and advocated renewed energy technology collaboration between producing and consuming countries.

The participants discussed technological development in the upstream sector and the role of technology in increasing fossil fuels supply. They exchanged their views on how to promote technological development and deployment and ways and means to enhance cooperation between all stakeholders.

The discussion covered several issues including technological development, deployment of carbon capture and storage and cooperation and partnership.

Technological development

- The participants affirmed that fossil fuels are expected to remain the main source of energy supplies, for the coming decades, with oil continuing to be dominant in the global energy-mix, and underlined the need to focus on technological advances that allow for sustained supply of petroleum and the continued use of oil in a carbon-constrained world.

- While acknowledging that hydrocarbon resources are amply available, the participants noted that technology development and deployment will provide solutions to explore, produce and deliver in an efficient and timely manner, the resources to end-consumers.

- The participants noted that technology is and has always been a fundamental force driving the oil and gas industry and will continue to play a key role to meet the challenges of securing the world’s growing energy needs in an environmentally responsible way. They observed that technology helps pushing the boundaries of

production, as it improves production rate, extends projected field life and increases ultimate hydrocarbons recovery.

- The participants affirmed that improvement in the global recovery rate - estimated to average 35 % today - through innovation and technology advances helps increasing oil and gas reserves. They observed that in some oil fields companies are already producing at a recovery rate of over 50 %, and that according to available estimates, an increase of one percentage point in the average recovery rate of existing oilfields would be equivalent to two years world oil consumption, at current rates.

- The symposium discussed how to sustain continuous technological development to find, develop and produce oil in an increasingly harsh environment. The industry will need to drill deeper and extract oil and gas in severe conditions (high temperature and high pressure) while containing operational costs at a level compatible with economic environment.

Carbon Capture and Storage

- The participants noted that carbon capture and storage development and deployment can play a crucial role in delivering a sustainable energy future and called for CCS to be included, as soon as possible, in the Clean Development Mechanism.

- They affirmed that CCS technology used in conjunction with CO_2 enhanced oil recovery is a "double-win" option as it reduces greenhouse gas emissions while at the same time increases recoverable reserves in mature fields and hence contributes to global energy security. According to IEA – WEO 2008, EOR technology is projected to contribute 6.4 mb/d to world oil supply in 2030 - with CO_2-EOR accounting for most of the increase - and a cumulative production of 24 billion barrels over the period. About 9.8 gigatonnes of CO_2 are captured and stored in CO_2-EOR projects over the projection period.

- While acknowledging that CCS technology offers a huge potential to tackle climate change, they noted that there is still a long way to go before it makes a significant impact on greenhouse gases emissions.

- The participants discussed the obstacles that CCS technology still has to solve, such as cost of implementation and the need to reduce energy consumption of transporting and storing CO_2, and underlined the need for more commercial-scale demonstration projects and international partnerships to help CCS become commercially viable.

- The symposium welcomed all initiatives aiming at making CCS technology deployment economical at large scale.

Cooperation and partnership

- The participants noted that best practices and experience sharing among governments and industry players could help enhancing environmental sustainability and energy security and could be beneficial for both producing and consuming countries.

- The participants affirmed that partnership between NOCs and IOCs in technological development and implementation is a win-win situation and called for a renewed collaboration and a strengthened cooperation. Developed and deployed with an open and collaborative approach, technology is fundamental to tackle the increasing challenges facing the oil industry, the participants said.

- There was a wide-ranging discussion in the symposium on how energy security can be improved and participants underlined the need to expand cooperation and partnership

between NOCs, IOCs, service companies, universities and research centers to develop human resources and encourage R & D for technological advances that will reduce costs, improve efficiency and increase output.

- The participants observed that until recently R & D and technological developments are undertaken mostly within international oil companies and service providers, but national oil companies are entering the game, setting up R & D centers and making significant progress in hydrocarbon technology. The participants encouraged exchanges and cooperation between R & D centers to identify potential synergies and called for adapted approach to foster cooperation.

- The participants noted that R & D efforts and technology advances require important investment and called for partnership between NOCs, IOCs and services providers and collaboration with governments to speed up the development and implementation of technology to the benefits of all parties. The symposium advocated industry and governments to maintain R & D funding despite foreseeable budget constraints.

- While underlining the advantages of CCS technology, the participants called for an enhanced cooperation between producing and consuming countries to accelerate its deployment and harvest its potential, and noted that this can be undertaken in the framework of IEF.

- The participants underlined the growing interdependence between oil and gas producing and consuming countries and advocated all parties to find ways and means to translate this higher interdependence in a vector of cooperation. They stressed that technology partnership, particularly in the upstream sector, provides a platform for a sustained cooperation and an effective dialogue between producers and consumers through the IEF.