COMMUNICATION FROM THE INDUSTRY ADVISORY PANEL
TO THE ENERGY CHARTER CONFERENCE

29 November 2011

1. Introduction

Mandate, membership and working method of IAP

The objective of the IAP is to support cooperation and dialogue between the energy industry and the Contracting Parties and to promote the use of the ECT. The number of IAP members now stands at 33 from around 20 Contracting Parties and covers the full scope of energy supply, distribution and financing activities.

The IAP seeks to advise the Energy Charter Conference on the basis of expert input from members (both private and state-owned companies) and through examination from a business perspective of the relevant work of the Secretariat.

Date of formation and number of meetings to date

Since its inception in late 2004, the IAP has held 20 meetings, mainly in Brussels at the premises of the Secretariat, but also during the last three years in Baku, Athens, Milan, Amman, Stavanger and Prague, at the invitation of members and other interested parties. The meetings outside Brussels have provided outstanding opportunities to engage with industry operators and to understand and comment on important regional energy perspectives.

Meetings in 2011

The IAP held three meetings in 2011. A meeting in Prague at the invitation of CEZ provided valuable insights into Czech energy and industry policy, including use of coal, hydro and nuclear power for electricity generation. The second meeting of the year was held in Brussels. Finally, the State Oil Company of Azerbaijan (SOCAR) hosted a meeting of the IAP in Baku for the second time and this largely addressed issues of natural gas exploration, production and transportation from the Caspian region.

Working Method

The IAP continues to work on the dual basis of:

- case studies provided by its members with subsequent comment on the issues raised
- review of expert work presented by the Secretariat or other invited authorities

It is rewarding to note that meetings continue to be well attended and members show great willingness to present case studies based on their relevant company or trade association experience. The expert input of the Secretariat is also greatly appreciated.

2. Main Issues Considered and Observations for 2011

Global Energy Outlook

Presentation of the BP Energy Outlook to 2030 highlighted the continued strong growth of energy consumption in the non-OECD economies. Although OECD energy consumption is expected to remain broadly level, global consumption is forecast to grow by around 40% by 2030, mainly as a consequence of demand growth in the non-OECD economies.

It is anticipated that the fastest growing source of energy to 2030 will be renewables including bio-energy. However, by 2030 renewables are forecast to still account for only around 6% to 7% of global demand. Nuclear and hydro power are each likely to account for around 7% and the balance of 80% of global energy demand will be supplied by oil, gas and coal.

Amongst the hydrocarbon fuels, oil use will be focused on transport and will decline as a proportion of total energy consumption. Coal will broadly retain market share and natural gas is expected to grow significantly in terms of both absolute use and proportion of total consumption. By 2030 the proportions of global energy consumption attributed to oil, gas and coal are expected to be approximately equal at 26-27%.

There are sufficient remaining global resources of oil, gas and coal to meet this demand for decades ahead. However, growing demand will pull in new sources of supply including from deepwater, shale gas and coal bed methane, heavier oils and remote and Arctic locations. Indications are that the earth's crust may be especially well endowed with natural gas resources. Even if the cost of supply increases, the high energy density and transportability of hydrocarbon fuels will ensure that they remain competitive in the market place well into the future.

Gas Market Developments

Overall gas demand is expected to increase in Europe due to uncertainties over nuclear development and switching from coal to gas. At the same time, domestic gas reserves are diminishing and more gas imports will be needed into the EU.

However, some authorities, including the European Commission, still appear ambiguous about the use of natural gas, although industry generally believes that renewable targets will be difficult and expensive to deliver, and greater use of natural gas may be both necessary and desirable to sustain reliable, lower carbon energy supplies. In particular, natural gas may be needed to cover the inherent intermittency of renewables and much work still needs to be done on issues such as balancing, ancillary services, capacity payments, etc. Note should also be taken of the high costs of grid development to support renewables expansion.

More broadly the EU will face growing competitive pressures in LNG markets, if not for pipeline gas imports; for example Japan will require more gas (14 bcma on top of 67 bcma already needed) due to Fukushima.

Nuclear Energy

The IAP heard that public acceptance for nuclear energy in countries such as the Czech Republic remains at a `sustained` level, even after the Fukushima accident in Japan. There is not the same level of concern regarding natural hazards (earthquakes or tsunamis) and the technology used is different (boiling water reactor in the Japanese incident vs. pressurised water reactor in the Czech Republic).

However, it is equally clear that without ensuring public acceptance, no new nuclear power plant can be built and each country has to learn how to address this issue.

The autonomy of nuclear energy regulatory agencies is of crucial importance. In the Czech Republic, the nuclear regulatory agency reports directly to the Prime Minister and has an independent budget for nuclear safety, inspection of radioactivity and physical protection, etc as well as planning. Independent construction permits from other ministries are also necessary, in accordance with the legislation related to nuclear energy.

It should also be noted that, due to international regulations, there is no `spot market` for uranium. In the EU, radioactivity control and uranium supply are a subject of EU competence, while the national energy mix is solely a national issue.

Shale gas

Much can be learned in the Energy Charter area from the US experience of shale gas. Some key points are:

- The term 'non-conventional vs. conventional' gas needs to be used with care. There are a range of technical issues and shale gas can in many ways now be considered conventional.
- US shale gas development has been driven largely by entrepreneurial activity, reflecting the geological, ownership and economic circumstances of the US industry. These conditions may not be fully replicated in Europe or Asia.
- There are different drivers for development of shale gas. Each location is likely to be different due, for example, to the availability of abundant conventional gas and development policy will depend on regional/national circumstances.
- Shale gas in the US has suffered some environmental concerns, especially with exploration and development moving into more densely populated areas in the Eastern states. This may point towards key issues that will need to be addressed for shale gas development in Europe.
- Shale gas is no different in chemical terms (carbon intensity, etc.) than conventional gas but the higher density of drilling needed to support production may result in a higher overall 'carbon intensity' relative to conventional gas.
- While the chemicals used in shale gas are qualitatively familiar, the volumes of water required for 'hydrofracking' may present concerns regarding the total volume of chemicals used. These points towards the need for careful operational planning, an appropriate regulatory and transparency framework and great attention to public information and acceptance.
- Shale gas in Europe may initially attract higher costs than in the US due to lesser availability of the necessary equipment but unit costs will reduce over time with greater rig utilisation.

Electromobility

The IAP noted that major electricity companies such as CEZ of the Czech Republic, are looking closely at the greater use of electricity in transport. Some key points are:

- CO_2 reduction from electromobility depends, in large part, on the availability of lower carbon electricity. Where new nuclear capacity is being deployed, for example, E-mobility projects may help to reduce emissions from transport through use of electric vehicles (EV)
- Charging infrastructure will be an important dimension of EV development. Charging time is an issue, although charging time can be balanced against charging frequency

- Any comparison of electricity *versus* conventional fuel costs should consider the tax revenues currently provided by gasoline and diesel, which are typically 70% or more of consumer price. These revenues would need to be obtained either from electricity or other sources in an electrified transport system

Caspian Sea Gas Development

The Caspian Sea has substantial resources of natural gas that may be available for European and other export markets. Azerbaijan occupies an important position by virtue of its natural resources base, geographic position and successful history of partnership with international companies. Some key points are:

- Cooperation with international companies and new gas discoveries, mean that Azerbaijan has greatly strengthened its energy security and is able to become a significant natural gas exporter. The country expects to produce 50 bcma of natural gas by 2050.
- Provision of secure gas supply to the EU is a key strategic objective. Negotiations between Turkey and Azerbaijan on gas sales and transit were recently concluded and prepare the way for onwards transmission of Azerbaijan's natural gas to Europe. Azerbaijan may also become a transit country for the energy resources of Central Asian countries to reach world markets.
- Azerbaijan has put consistent priority on commercial terms and market principles. Future plans for the development of hydrocarbon resources are based on market needs and best use of technology.
- From an EU perspective, Russia is and will remain a key partner but the EU is looking for further gas supply route and source diversification. The EU consequently supports the concept of a fourth energy corridor (southern corridor) for increased gas transmission to Europe.
- In this context, the EU recently launched an initiative with Azerbaijan and Turkmenistan to develop a Trans Caspian Pipeline (TCP) to provide gas from Turkmenistan with a new export route via Azerbaijan to European gas markets. Negotiations are currently in progress.

Extractive Industries Transparency Initiative (EITI)

Further to the discussion in Stavanger in September 2010 on revenue transparency in the extractive industries, the IAP noted that Azerbaijan has been actively involved since the beginning of the EITI initiative and signed the first MoU in November 2003. A first report was prepared and submitted in 2005 on income and expenditures (inclusive of all taxes, bonuses, etc.) relating to the extractive industries of Azerbaijan. Azerbaijan is a leader in EITI implementation and was the first country to pass through the EITI validation process.

IAP members emphasised their support for the EITI process, while the Energy Charter has also made clear its alignment with the EITI through a public statement at its annual Conference.

International Pipeline Transportation

The Caspian region and notably the Baku-Tbilisi-Ceyhan (BTC) oil pipeline, has provided considerable practical experience on the legal dimensions of international energy transportation regimes, including the provisions and safeguards provided by the ECT. Some key points are:

- There are several dimensions to energy transit, with potentially diverging interests among producer, transit and consumer countries, between host states and investors and from different institutional perspectives such as the ECT and WTO. In this context, the ECT is

of tremendous importance for the energy transit business, through its provision of a strong and widely accepted basic legal framework. In addition, Inter Governmental Agreements (IGAs) and Host Government agreements (HGAs) are normally considered indispensible and complementary legal instruments for major energy transit projects.

- Increasing internationalisation of the energy sector makes it imperative that international legal instruments such as the ECT are readily available. These legal instruments play an indispensable role in inducing and facilitating energy investments, especially in the transit business. Further improvements to existing tools of global governance, in line with ECT principles, are encouraged and strongly supported by the industry.
- Recent extension of the EU's competence for Foreign Direct Investment (FDI) may have implications for relevant legal tools such as bilateral investment treaties (BITs). As yet the direction of future development in this area is unclear.

Role of the Energy Charter Treaty

Based on all the experience of its members in energy investment and development, the IAP continues to strongly support the Energy Charter process and the principles of the ECT in international energy practice. From an industry perspective, the value and importance of the Energy Charter framework for the protection of energy investment and the provision of secure energy transportation and transit, remains clears and undisputed.

As the internationalisation of energy continues to develop in all areas, not least for natural gas, electricity and coal, the importance of a sound legal framework for international investment and transit continues to grow. The Energy Charter Treaty remains of particular relevance in this respect.

The role of the Energy Charter Secretariat in providing expertise and visibility for the ECT and in coordinating with other relevant international organizations is also fully recognised.

3. Work Programme for 2012

It is proposed that the IAP will meet on three occasions in 2012, with the first meeting focusing on natural gas markets and regulatory issues.

Other items for consideration during 2012 may include:

- electricity systems development including smart grids
- financing of major energy projects
- financing of CCS and major CO_2 infrastructure developments
- energy efficiency
- pathways to a lower carbon economy
- energy research and technology

The IAP will also continue to monitor energy industry developments and the role of the ECT in facilitating secure and competitive energy supplies in the Charter area.

During 2012 the IAP also intends, in collaboration with the Secretariat, to carry out a full review of the membership, working practice and engagement of the IAP, in order to ensure the continued relevance and effectiveness of the IAP in support of the Charter process. It is hoped that the Conference will give full support to this intention.