EUCERS Newsletter

Newsletter of the European Centre for Energy and Resource Security (EUCERS)

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Introduction

Welcome to the 51st edition of the EUCERS Newsletter.

We are pleased to welcome our new newsletter editor, Thomas Froehlich. Thomas is currently writing his PhD thesis at King's Brazil Institute on Brazil's International Ethanol Strategy. He will be taking over from next month issue onwards. Please see the announcement section on more information about Thomas.

This newsletter features two very insightful articles. KAS Fellow at EUCERS 2014/15 Kalina K Damianova is writing on the implications of investing in Iran's oil and gas sector. Dr Maria Kottari, Research Associate at EUCERS and Post-Doctoral Research Fellow at the ADA University in Baku, is writing on the prospects and challenges for wind energy in Azerbaijan.

In the activities section we are looking back onto the first EUCERS/ISD/KAS Energy Talk 2016 series on the Future of Oil, which we held in Edinburgh.

EUCERS is also pleased to announce the publication of the 8th EUCERS Strategy Paper on strategic perspectives for bilateral energy cooperation between the EU and Kazakhstan.

This year, for the fifth time, the EUCERS Executive Energy Seminar will already take place from 23.-27. May 2016. Please find more information in the announcements section and on our website www.eucers.eu

In EUCERS on the Road we continue to inform you about conference participation and presentations of our members, as well as their latest publications.

I hope you will enjoy the newsletter!

Carola Gegenbauer
Operations Coordinator at EUCERS, King's College London

In this Month's Edition:

ARTICLES

Investing in Iran's oil and gas sector: Oil contracts, stakeholders, strategy, and risks

By Kalina K. Damianova

The Joint Comprehensive Plan of Action (JCPOA) Implementation Day marked the lifting of the nuclear related sanctions on Iran and showed a "green light" to European and Asian companies eager to do business with Teheran. At the same time, it left some uncertainties still present and US investors cautious, as some restrictions were lifted only for non-US persons. In terms of investing in Iran's oil and gas sector, apart from the change in the international environment, other factors of importance are the new oil contracts terms, the local stakeholders and their agendas, and the remaining potential risks.

Kalina K. Damianova was a KAS Fellows at EUCERS from 2014-15 and conducted her research on Iran in the context of (re-) emerging energy superpowers. She holds a MA in International Peace and Security of King's College London, focusing on the EU's energy security and the security of the Black Sea Region.

Iran Petroleum Contracts (IPCs)

The so-called "buy-back" oil contracts – risk service contracts through which the International Oil Companies (IOCs) were able to engage in the Iranian oil and gas sector – have now been reformed by the Iranian authorities. Under the buy-backs the IOCs were able to invest in the exploration and development phases, but did not have control over the production phase. Additionally, the buy-backs hid high risks of losses, due to lack of flexibility in terms of costs recovery and risk bearing. They were short in period and did not allow any form of ownership of reserves or booking of reserves. All these setbacks, along with the complicated domestic and international political environment, made IOCs reluctant to invest in Iran's oil and gas sector.

Simultaneously with the International Nuclear Talks, the Iranian authorities have been working on a new more flexible and less risk involving contractual framework – Iran Petroleum Contracts (IPCs). Some characteristics of the IPCs were revealed in November 2015 in Teheran, but the full details were not specified. IPCs are said to be more flexible in almost every way. They will be longer in duration (20-25 years), will have a flexible development plan and will envisage better terms for cost recovery. A balanced risk-reward approach, taking into consideration the oil and gas fields' potential risks, is expected to be offered. Some of the most important changes that have been discussed are the integration of the exploration, development and production phases and lifting of the pre-fixed ceiling on capital expenditures.

The Iranian authorities have shown their acknowledgement of the need to attract foreign investments in the energy sector, a strong economic motivation preconditioning a more pragmatic approach in the preparation of the new contracts. Therefore, the final version of the IPCs will probably address most of the IOCs' concerns in a more attractive way to the companies than offered in the buy-backs. Nevertheless, the influence of the debate within Iran on the extent of "freedoms" that the contracts will allow should not be underestimated. In this respect, no form of foreign ownership of natural resources is expected to be permitted. The new contractual terms will not be the only determinative factor for IOCs' investments choices, but probably one of great importance.

Management Of The Oil And Gas Sector

The Iranian energy sector is dominated by the state. The control of activities spreads among a variety of state-owned and Ministry of Petroleum (MoP) affiliated companies. Under the MoP three key companies – the National Iranian Oil Company (NIOC), the National Iranian Gas Company (NIGC), and the National Petrochemical Company (NPC) – dominate the oil and natural gas upstream, downstream, and petrochemical sectors.

The state-owned companies, such as NIOC and NIGC, delegate some of their responsibilities to subsidiary bodies that execute the work on their behalf. For instance, NIGC is in charge of Iran's natural gas downstream activities, including gas processing plants, pipelines, and city natural gas networks. While gas exports are in the scope of work of the National Iranian Gas Export Company (NIGEC), a subsidiary of the NIGC.

Sanctions deprived Iran's energy sector from know-how and technology that foreign companies could bring in. Instead, local companies took key areas of the industry, but although developing domestically, they still need foreign companies' expertise and innovations in order to be globally competitive. For these reasons, the new Iranian petroleum contracts will envisage establishment of forms of joint ventures between local and foreign companies and will facilitate transfer of technology.

Iran's Oil and Gas Strategy

Iran's oil and gas strategy aims to make the state globally competitive in almost all fields of its oil and gas industry. According to NIOC officials, Iran's upstream and downstream sectors need more than $250 billion in order to reach planned goals. More than 45 oil and gas projects are expected to be offered under the IPC model to investors. Some of them were already presented at a conference in Tehran. Iran's expectations are $20-30 billion of foreign investments to be attracted by the newly offered opportunities under the IPC.

In the oil sector, Iran will first seek to increase its oil production up to pre-sanctions levels. Re-gaining market share and increasing production will be more important for Iran than the potential further drop in oil prices. Iran's priority is the development of the shared oil and gas fields with neighbouring countries and the oil fields with high natural decline rates, needing enhanced oil recovery (EOR) or improved oil recovery (IOR).

In terms of natural gas, in the next 5 to 10 years, Iran will target a share of 8-10 percent of natural gas trade, more than 300 billion cubic metres per day of gas production, as well as expansion of its domestic pipeline and regional export pipeline infrastructure. Other main goals are the development of the South Pars gas field and the completion of its main LNG project. Apart from aiming production growth, decreasing its vast domestic natural gas consumption and improving efficiency will also be among the state's key priorities.

Potential risks for investors

The long history of distrust between Iran and the international community will make the process of reconciliation between Iran and the Western powers longer than the sole lifting of the sanctions. The fact that non-nuclear related sanctions remain present will also complicate doing business with Iran. Although it is unlikely that Iran will provoke it, the possibility of any potential re-enforcement of sanctions will be seen as a key risk from the companies' perspective. Additionally, Iran's, sometimes controversial, behaviour in the region's complex conflicts and security will be seen as a risk factor. Doing business with Iran's local actors, whose interests might not be fully transparent, and avoiding relations with people or entities being still black-listed, will require lengthy and costly due diligence process for Western companies. These issues could lead to reputational risks.

The drop in oil prices has made IOCs more reluctant to make investments when high risk is involved. Therefore, stable implementation of the law, transparency, and decreased corruption levels are some of the main requirements for making the domestic environment attractive to IOCs. In this regard, the complicated political system in Iran can be another potential challenge, creating a feeling of uncertainty for the companies. Furthermore, companies will have to investigate and understand the links between ruling elites and stakeholders. At the same time, since the energy sector is dominated by the state, the bureaucratic process that the new projects will have to undergo can be time-consuming and potentially blocking projects' development course.

Offering a more attractive oil contractual framework is a sign showing Iran's willingness to re-open its market to foreign companies. Nevertheless, it will take time and actions from both sides to establish a stable and long lasting business relations. Finally, the attractiveness of the offered projects for investments will be the determinant for bringing investors back to Iran.

**This is an up-dated and edited part of an interview, which Kalina K.Damianova, EUCERS Research Associate, gave for Iran Post-Sanctions Business Conference, first published by London Business Conference, December 2015.* http://www.iran-international-business-conference.com/program/

A “wind of change” in Azerbaijan’s energy policy? Prospects and challenges for wind power development

Admittedly, the impressive economic and welfare growth that Azerbaijan maintained during the last decade was primarily based on hydrocarbons reserves exploitation, backed up by the significant involvement of foreign investors. Recently, Azerbaijan revived the international energy interest not for its traditional, conventional energy sources but for its coming to prominence as an alternative energy producer.

A series of factors contribute in switching on the Azerbaijani alternative energy machine on. On the one hand, the global economic recession and the environmental degradation make the need for a shift towards a “greener” economy an imperative. On the other hand, the county’s abundance in alternative energy sources provides attractive investment opportunities.

However, whether the abundance of sources stands for a prerequisite, generating power from renewable energy sources and, principally, channel the power produced into the transmission infrastructure is a multifaceted issue. An issue that requires a coherent strategy consisted of strong political commitment, a proper legal framework, funding sources and technical expertise. The prospect of further wind power development in Azerbaijan best exemplifies the aforementioned facts.

Analysis

Azerbaijan’s renewable energy strategy goes far beyond simple declarations. Since 2004,when a first comprehensive energy and climate ten-year long policy framework has been announced[1], Azerbaijan’s commitment to shift towards to a cleaner energy portfolio is reflected in strategic institutional acts and reforms in both the internal and external jurisdictions. A Presidential Decree in 2009 announced the establishment of a State Agency for Alternative and Renewable Energy Sources (SAARES)[2] and within the

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same year, Azerbaijan became the 96thmember-state of the International Renewable Energy Agency (IRENA).

The national strategy document “Azerbaijan 2020: Looking into the future”[3], adapted in 2013 aligns key energy indicators, such as energy intensity and CO2 emissions standards with the relevant indicators of OECD countries. At the same time, the national strategy for the development of alternative and renewable energy Sources in 2012-2020, provisioning that by 2020, 20% of the country’s electricity consumption must be met by electricity generated from renewable energy sources, while in 2020, 9,7% of the country’s total energy consumption must be met by renewable energy sources, follows the EU 20-20-20 set of goals pattern.

Wind power is a prominent source of renewable energy production and preferable compared to solar, hydro, geothermal and biomass for its cost, environmental soundness and unlimited availability.

According to statistical reviews[4], Azerbaijan possesses800 MW of annual wind power capacity. High average annual wind velocities exist across the state’s territory. However, the wind output varies among the regions due to the special natural and geographical conditions as well as the required technical and economic infrastructures. Additional statistics show that wind power has an important role to play in the on-going Azerbaijani RE transition. According to SAARES, the period from 2016 to 2020, RES consumption will reach

[1] The State Program on Use of Alternative and Renewable Energy Sources in the Republic of Azerbaijan, accessible on: http://www.carecprogram.org/uploads/docs/AZE-Renewable-Energy-Strategy-en.pdf

[2] State Agency for Alternative and Renewable Sources available on: http://www.iea.org/policiesandmeasures/pams/azerbaijan/name-36528-en.php

[3] Order of the President of the Republic of Azerbaijan on preparation of the "Azerbaijan 2020: looking into the future" Development Concept available on: http://en.president.az/articles/3689

[4] See HajarHuseynova (2015), Alternative and Renewable Energy Outlook for Azerbaijan, Policy Paper, Caspian Center for Energy and Environment, available on: http://www.kas.de/wf/doc/kas_40177-1522-35-30.pdf?150123132359

the 7652 MW and wind power will represent approximately the 30% out of the total.

The year 2009 marked the successful operation of first wind turbines installed in Yeni Yashma, Khizi region (northern Azerbaijan) based on the cooperation between the German Energy Competence Centre GmbH (ECC) and the Azerbaijani Caspian Technology Company. These turbines are connected to the national grid, providing 35MW of electric power and saving 2,5mln m3 of natural gas annually.

The GobustanExperimental Hydrid Polygon[5], with a total capacity of 5,5 MW, operates three wind power plants with a total rated capacity of 2,7 MW and covers the energy needs of Gobustan city entirely from RES. The so-called Gobustan Experiment is a highly successful and promising RES project with regional and international appeal. Gobustan is the only, so far, city in Azerbaijan that succeeded to cover its energy needs from RES. At the same time, the concurrent operation of an on-site training centre serves as a best practice in RES development sector and sets international standards for the successful implementation of similar projects.

Nevertheless, the great potential of wind energy development in Azerbaijan goes along with significant challenges. Wind energy in Azerbaijan is widely available but its quality is location dependent and coupled with the very limited capacity of Azerbaijani land for wind turbines installations, the Caspian islands should be considered as an alternative installation location. Furthermore, the non-controllable variability of the wind power output generates further technical hindrances in integrating wind power in the national electrical grid.

Technical hindrances require primarily, know-how transfer and economic investments. Hence, foreign investors will also back Azerbaijan's new energy shift. As far as wind power industry is concerned, German investors, in the context of Germany's 'Energiewende', are in search of international "green partners". They have an eager interest[6] in getting involved in Azerbaijan's wind energy industry and in facilitating financing schemes and know-how transfer.

Conclusion

The global financial crisis has resulted to a gradual growth of the share of Azerbaijan's GDP produced through other than hydrocarbon resources[7]. RES production has been part of this trend and, according to some rough calculations, the total wind power capacity equals to 2.4 billion kWh of electricity and more significantly to 1 million tons of conventional fuel savings. Given the oil price decline together with the gradual depletion of hydrocarbons reserves and environmental concerns, as articulated in the country's commitment to meet the UN Sustainable Development Goals (SDGs), the further expansion of RE industry of Azerbaijan can lead the shift to a non-oil dependent modern economy in the coming decades. Whether we cannot argue about a RES "boom" comparable to 19th 's century oil boom, a cautious energy strategy could reconfigure Azerbaijan's footprint in the global energy scene. Foreign investors highlight the associated regulatory risks and the absence of a clear legal basis for investments in RE infrastructures. The Azerbaijani government itself recognizes the institutional shortcomings. President Ilham Aliyev has severely criticized SAARES for the delays recorded in the RE strategy implementation. Additionally, foreign investors argue that hydrocarbon reserves should be used, gradually, as an exportable energy source giving space to RES to cover the internal energy needs. This sounds, though, as an extremely ambitious and groundbreaking project.

DISCLAIMER

The views expressed in this Newsletter are strictly those of the authors and do not necessarily reflect those of the European Centre for Energy and Resource Security (EUCERS), its affiliates or King's College London.

[5] Find information on the visit to Gobustan Experimental Polygon 2012 on: http://greenazerbaijan.org/?page_id=738

[6] Germany to support wind energy development in Azerbaijan, available on: http://en.trend.az/azerbaijan/business/2448857.html

[7] Azerbaijan's non-oil sector sees 7,3 percent growth, available on: http://www.azernews.az/business/87991.html

ACTIVITIES

EUCERS/KAS/ISD Energy Talks 2016: The Future of North Sea Oil

By Jose Bolanos, KAS Fellow at EUCERS

On Saturday 30th of January 2016 we had the opportunity to learn about the Future of North Sea Oil at Heriot-Watt University' Edinburgh Campus. This activity was the first of the 2016 Energy Talks made possible thanks to the collaboration between the European Centre for Energy and Resource Security (EUCERS), the Konrad Adenauer Foundation (KAS), and the Institute for Strategic Dialogue (ISD). The conference counted with the participation of four speakers: Hans-Hartwig Blomeier, Director of KAS' London office; Dr Friedbert Pflüger, EUCERS Director; Dr Ian Duncan, Conservative MEP for Scotland; and Dr Frank Umbach, EUCERS Research Director. The following is a condensed version of the views expressed by the speakers.

Opening Statement | Hans-Hartwig Blomeier.

Mr Blomeier opened the activity by thanking the speakers and participants and noting that this activity is the first in four years of energy talks taking place outside of London. Mr Blomeier praised the very enjoyable and varied weather in Edinburgh whilst stressing the importance of coming as close as possible to the North Sea. Mr Blomeier thanked the Heriot-Watt University team for their hospitality and also noted that it was a privilege to have this activity as part of KAS's seminar for scholarship recipients. Finally, Mr Blomeier introduced the speakers and opened the floor for the discussion.

Setting the Grounds | Professor Dr Friedbert Pflüger

Welcoming the continued cooperation between KAS, EUCERS, and ISD Dr Pflüger started by mentioning the fact that the activity is taking place out of London.

Dr Pflüger started his keynote by touching on a number of issues that affect oil across the globe. For example, he mentioned that prices have dropped dramatically, 75% since 2014. Because of its impact to businesses and employment Dr Pflüger considered the situation to be a catastrophe for oil producers whilst noting also that, for consumers, the drop in prices acts as stimulus. He then entered a discussion about the different roles that some players have been thought to have. For example, how in the beginning some people thought that the drop in prices may have been orchestrated to hurt Iran, or how others argued that this was clearly in the benefit of Saudi Arabia. However, he also noted that, in his view, it has become clear that Saudi Arabia cannot afford the situation any longer and that the situation now means "even more" instability in the Middle East. Dr Pflüger then spoke about the main reason for the drop in prices, namely the balance between oil supply and demand. He reminded how in 2015 we had an average of 2.5 million barrels a day of oversupply. Dr Pflüger considers this imbalance to result mostly from the increased availability of local oil in the United States, which translated in less purchases from world markets. He also notes that other areas such as Iraq, Northern Iraq, Kurdish region, Brazil, Nigeria, and Angola added to the glut, whilst growth in countries like China failed to meet expectations.

At this point, Dr Pflüger noted that it is hard to know how much the oil price will continue to be low as there are many factors that play a role. For example, we are yet to find out the impact that Iran will have once it re-incorporates into the market. We know that Iran claims that it will add 500,000 barrels to the market just this year but Dr Pflüger added that Iran's new contracts, to be presented in February in London, may significantly attract foreign companies and further the glut. Dr Pflüger also mentioned that investment of up to $1.8 trillion are currently in hold or completely cancelled which he believes will ultimately create a yearning for oil that will balance the situation, even if world growth slows down. As such, the main question, as seen by Dr Pflüger, is the question of 'when'. In this sense Dr Pflüger identifies some trends that he considers as 'good signs' if seen from the perspective of oil producers. For example, low oil prices have led US consumers to buy big cars again. Chinese middle class, despite of the overall development of the Chinese economy, is buying cars as it did before. These events, Dr Pflüger noted, seem to indicate that whilst Paris had nice aims for decarbonisation there will be a continued demand for oil. As such, he considers that if the North Sea oil industry can survive the months or years of crisis, profit may be available on the medium term. In Dr Pflüger's words, oil will be back "perhaps not at 100% but at 60%, 70%". Dr Pflüger then continued to warmly welcome the following speaker, Dr Ian Duncan.

The local view | Dr Ian Duncan

Dr Duncan started by thanking the audience and noting that it is worth to consider that he is the only geologist in European Parliament. As such, he sits on the Energy Committee and the Environment Committee, as well as having been in Paris and Lima climate talks as one of the European delegates, and being the Parliament's chief negotiator on the Emissions Trading Scheme (ETS). Dr Duncan then began his statement by giving a brief historical reminder of the importance of the North Sea. He noted that west of the place where the conference was taking place there are some very unusual orange-flat-topped mountains that are remnants of the oil shale industry of the 1860s, which marks the start of the global oil industry. Indeed, he noted, although the boom had to wait until the North Sea became accessible, Scotland was the heart of the early stages of the oil industry. Dr Duncan noted that this historical-geographical consideration is important because the North Sea is not a pleasant place to extract anything. As the need to be safe in such an environment is paramount the technologies that are now in use are at the cutting edge, which has led to a significant improvement in the safety record of the North Sea over the last few years.

After setting the scene Dr Duncan moved into the question of the future of oil. He began by reminding the audience of the proverb that reads, "The stone age didn't end because we ran out of stones". He used this proverb to bring attention to the dilemma we face with regard to hydrocarbons, as the reality continues to be that the economy is dependent on carbon. Whilst there is an effort to decarbonize, most houses in Scotland use gas for heating and there are very few electric cars in the road. As such, he noted, change is not something likely to emerge soon. He also noted the need to be responsible with policy prescriptions toward the developing countries, as many may need carbon to develop. Ultimately, Dr Duncan reminds the audience that we created the problems of climate change – he even noted that Scottish people have the highest per capita carbon usage if seen historically. In this context, Dr Duncan noted that the North Sea will continue to be important as another undeniable fact is that there is oil in the North Sea, albeit difficult to extract and thereby expensive. As such, he considers, competition in the region will continue to get tougher as long as prices stay low.

Dr Duncan further noted that many factors are beyond control, as is for example Iran's capacity to pump oil into the markets. He sees such type of factors as de-stimulating new extraction in the North Sea region. As such, Dr Duncan noted that although prices will bounce back, the question is the point at which it will become sensible to pursue further reserves in the North Sea. Dr Duncan further brought attention to the impact that this may have to employment, thus far having cost more than 60,000 jobs and estimated to go past the 100,000 mark. He further noted his concern at the fact that this is a loss to an economy that is greatly based in two things, oil and fish. Dr Duncan further noted that this is a particularly important consideration because fracking is currently banned in Scotland, which prevents expertise from the sea to be brought unto land. In such manner, as noted Dr Duncan, the challenge of what to do with the North Sea oil industry is a concerning one.

Dr Duncan closed his remarks by returning the conversation to the issue of climate change and Paris Agreement's "well below 2°C" target and its ambition to actually keep global warming under 1.5°C. He noted that we couldn't meet these goals as it is, particularly if prices keep going down and people continue to buy more oil. In such manner, Dr Duncan noted, the world needs to start thinking about mitigating measures. In this regard, Dr Duncan noted that Carbon Capture and Storage (CCS) might work. He noted with concern that very little money has been put into it albeit of a need of about £40 billion. Dr Duncan considers that a solid ETS may help in this regard by raising the cost of emitting. However, he also noted that the current price of €7 per ton is extremely low as CCS would require a price of about €80 per ton but, at the same time, he estimated that his current ETS effort will only take us to about €30 per ton. Consequently, Dr Duncan noted, a CCS effort will require of the willingness of emitters to embrace costly technologies. However, Dr Duncan closed by noting that the problem with this is that consumers always pay for costly technologies and as such we should prepare to live in a future in which energy will be more expensive.

The global view | Dr Frank Umbach

Dr Umbach started his presentation by noting the influence that Saudi Arabia has had to the fall in oil prices. He noted how Saudi Arabia had traditionally acted as stabilizer for the markets to behave in ways that considers Western interests. This capacity is greatly due to the fact that no other country in the world has the spare capacity to exert such an influence. He furthered reminded how Saudi Arabia's unwillingness to cut production precipitated the fall and noted how it is questionable whether Saudi Arabia will return to mind Western interests. This is not only because it has not done so yet but also in the light of factors such as Saudi Arabia's internal politics and geopolitical considerations like its relation with Iran. Moreover, Dr Umbach also noted how discussions between the US, Europe and Asia about burden sharing have been stimulated by Saudi Arabia's position. In a nutshell, whilst in 2001 22-24% of US' oil came from the Middle East, nowadays only 10% does. As Europe and Asia are much more dependent on the Middle East than the US, many in the US question the $50 billion per year budgeted for ensuring oil stability in the region.

Dr Umbach then moved deeper into to the issue of oil prices. He noted that the World Bank recently revised its oil price forecasts for 2016 down from $52 to $37 per barrel, which some analysts think is still too high. Dr Umbach noted how this is due to a combination of factors. For example, Dr Umbach considers that there will be no short-term double-digit Gross Domestic Product (GDP) growth in China, which will further decrease demand from Asia. He also noted Iran's re-entry into the markets, as well as the 20% wordwide drop in investment last year and an expected 16% drop this year. Dr Umbach noted that this 'War of Attrition' may have profound effect across the globe. For example, he noted, it will most certainly lead to the suffering and perishing of many companies but at the same time, other players may find new opportunities in the market. In this regard, he mentioned the fact that fracking technologies have made leaps of progress with regard to efficiency, lowering costs in an unprecedented 35% to 40% in the last year. Dr Umbach noted that this technological factor changes the nature of the markets themselves. In such manner, whilst Saudi Arabia's focus in defending its market share may have success against inefficient players, it is doubtful whether it will be able to offset technological progress. In fact, he noted, hedge funds and private equity funds have $60 billion ready to take over bankrupted oil assets. As such, Dr Umbach argued there would be losers but 'deep-pocket' groups are in a position to capitalize from Saudi Arabia's strategy. Dr Umbach also noted that a concerning problem associated with low oil prices is the loss of experts to other industries throughout the period of under investment. Dr Umbach noted that such a loss of human capital hinders the industry's hopes for a rapid recovery if the present low oil price will not recover in the short-term future. Acknowledging the contribution from Dr Duncan with regard to the British North Sea, Dr Umbach moved unto a brief overview of the Norwegian North Sea. He noted how there are many similarities, such as the prioritizing of short-term earnings, up to 15 fields to be closed by 2020, a 16% fall in investment in 2015, and further cuts in

investments announced recently despite of several licenses being awarded.

Dr Umbach then moved back to consider the general situation. This started with a comparison of the 'cut-even' price for different regions. In it, Dr. Umbach highlighted that only Saudi Arabia, Iran, Iraq and Kuwait are currently producing at a lower cost than the current oil prices. He noted how this necessarily means that all other producers will continue to have a serious gap in their finances insofar oil continues at current prices. In addition and with the notable exception of the United States, Dr Umbach highlighted how most countries are becoming even more dependent on external energy imports.

In the final segment of his presentation Dr Umbach summarized his views to the following statements. Firstly, there is a developing 'oil mantra' in which experts have moved from thinking that oil will continue 'lower for longer' to thinking that oil will be 'a lot lower for a lot longer'. Secondly, it is difficult to imagine production cuts in the short term as Saudi interests are against high cost producers and Iran emerging as major oil producer and exporter. Thirdly, it is not realistic to expect a price recovery before 2017 and, even then, oil may only come back to $50/$60 per barrel rather than to $70/80 as assumed last year. Likewise, it would not be a surprise if oil prices do continue at record lows past 2017 8decreasing temporarily even to just US$20 per barrel). Fourthly, on the medium term perspective the worldwide transportation sector is the defining feature, particularly the issue of the battery prices and performance – which Dr Umbach noted being optimistic about in the mid-term future.

Questions &Answers (Q&A)

The activity continued with a lively Q&A session that accounted for about an additional hour of discussions. The questions and answers provided insight into a number of issues such as the general sense of the situation within Scotland, the issue of subsidies, nuclear possibilities, technology, technology bans, decommissioning, sustainability and many others.

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ANNOUNCEMENTS

New Newsletter Editor

We are delighted to welcome our new newsletter editor Thomas Froehlich. Thomas is currently writing his PhD thesis at King's Brazil Institute on Brazil's International Ethanol Strategy. He holds an MA in Political Science from the University of Munich. Thomas is a participant in several political networks and a keen supporter of international dialogue.

Feel free to contact Thomas at thomas.froehlich@kcl.ac.uk or follow him on twitter @froehlich.tm

EUCERS Strategy Paper

EUCERS Strategy Paper No.8 on strategic perspectives for bilateral energy cooperation between the EU and Kazakhstan is now available for download from our website on www.eucers.eu and then navigate to Strategy Papers.

EUCERS Executive Energy Seminar 2016 - Save the Date

EUCERS will be hosting the EUCERS Executive Energy Seminar for the fifth time in 2016. The one-week programme will take from 23.-27. May 2016. Please visit www.eucers.eu and navigate to the Executive Seminar page for more information and application.

EUCERS ON THE ROAD

Our team represents EUCERS at various conferences and events all over the world. This section gives a regular update and overview of conferences and interview contributions by EUCERS Director Professor Dr Friedbert Pflüger, Research Director Dr Frank Umbach and Associate Director Dr Adnan Vatansever.

13.1.2016 Garmisch-Partenkirchen, Germany	Frank spoke on "Energy Security and the New Dynamic in the East" at the "European Security Seminar – East (ESSE)", George Marshall Center.
15.12.2016 Brussels, Belgium	Frank presented on "The Russia-Ukraine Crisis: the Energy Dimension" at the "Annual NATO Energy Security Roundtable".
17.11.2015 Moers, Germany	Frank presented the EUCERS Study The Future of Coal: Coal versus Climate Protection?" at the, 9. Members conference of the Energy Agency North-Rhine Westphalia

PUBLICATIONS

Frank published an article on·"Changing Geopolitical Conditions on the Global Energy Markets", in: Silke Franke (Ed.), 'Energy and Climate Policy. The Role of Coal and Energy Markets', Hanns-Seidel-Stiftung (HSS), Akademie für Politik und Zeitgeschehen, Argumente und Materialien zum Zeitgeschehen Nr. 103, München 2016, pp. 13-24 and an article on "Coal to Remain King in China", Geopolitical Information Service (GIS - www.geopolitical-info.com), 4 January 2016, 4 pp.

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