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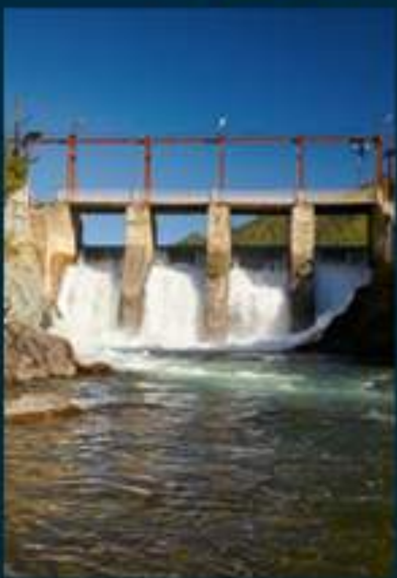



EUCERS Newsletter

European Centre for Energy & Resource Security
Department of War Studies, King's College London
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Introduction

Welcome to the 44th edition of the EUCERS Newsletter for the month of May.

This issue's general article section includes one extensive article by Alessandra Fani, administrative lawyer at the international law firm Orrick, Herrington & Sutcliffe in Rome, Italy, on the new challenges of capacity payments in a comparative analysis of the Italian and the English energy markets.

In our Activities section, we report from our EUCERS event "*The New Age of Oil: Climate Impact and Market Responses"* that took place on April 15th, at King's College London and was planned in cooperation with the Carnegie Endowment for International Peace.

We are also reporting from the workshop on "*Natural Gas Developments in the Eastern Mediterranean: Geopolitical & Economic Challenges*", that took place in Jerusalem on the 19th and 20th of May and was conducted by EUCERS together with the Atlantic Council U.S., ECO Energy Israel and the Konrad Adenauer Foundation (KAS).

Please note that applications for the 2015/2016 *KAS Energy Security Fellowship* are open until June 30. The program gives young researches the opportunity for a research stay at EUCERS, funded by the Konrad Adenauer Foundation (KAS). For more information, please see www.eucers.eu.

Also, EUCERS is conducting its yearly *Executive Energy Seminar 2015* from the 13th to the 17th of July, at King's College London, under the chairmanship of Dr Frank Umbach, Research Director at EUCERS. The one week seminar will revolve around "*Changes and Challenges in International Energy Markets*".

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

I hope you enjoy the newsletter!

Justus Andreas
Research Associate and Newsletter Editor at EUCERS, King's College London

In this Month's Edition:

ARTICLES

The new challenges of energy markets and the Capacity Payment

Alessandra Fani

Alessandra Fani is an Administrative lawyer in the Administrative and Energy Department at the international law firm Orrick, Herrington & Sutcliffe in Rome. She holds a PhD in Law and Economics from the University of Perugia, where she is also an Adjunct Professor of Public Procurement Law.

"*Energy is the heart of our economy and our society. When we invest in the energy sector we are investing in our future. On the contrary, by neglecting the adequacy and safety of the energy system, we risk being borne by negative and irreversible consequences*" (Günther Oettinger, then European Commissioner for Energy). And in fact, "*the inadequacy of the solutions in the energy field reflects a project inconsistency of the future life of our planet*".[1]

The present article analyses, from a legal standpoint, the adequacy of the solution offered by the Italian legislature to guarantee and secure of the national electrical system consisting of the so-called remuneration mechanism of available production capacity introduced by the Legislative Decree No. 379/2003 (or "Capacity Payment"), in order to verify its effectiveness as a measure of "back up" of the Italian electrical system and to put it in comparison with the system of ensuring adequacy of the electricity system adopted in the United Kingdom. And this is from the perspective of the development of a single European energy market, based on a European market capacity (i.e. the “Capacity Market”).

Liberalisation and adequacy of the electrical system

As a result of the liberalization process of the electricity market, both the British and the Italians have created (for the first time) the problem of ensuring adequacy and system safety.

This issue is the need to ensure continuity of supply in critical moments, also namely in times in which the market mechanisms for malfunctions and/or imbalances cannot ensure (by themselves) that each end user is provided with the electric energy requested in a timely manner.

And in fact an electrical system can be defined as "adequate" when in every moment it can be "expected / scheduled" that the production of an amount of energy is "exactly equal" to that required, so that at every moment there is the perfect coincidence between demand and supply and, therefore, a proper remuneration of the fixed costs of energy production.

In a monopolistic regime, system adequacy is ensured by the monopolistic operator (i.e. Enel, in the case of Italy), which jointly manages the generation plants, the transmission networks, the distribution networks and sales. In fact the monopolistic operator is able to ensure the security and continuity of supply through long-term planning of energy investments.

In contrast, in a liberalized market (that the result following Italian and British liberalisation) the system adequacy must be ensured by market mechanisms, which should (alone) be able to guide the investment choices on the part of electric energy producers, so that the electricity market is at all times (i.e. 24 hours) able to meet the energy demand of each end user.

But, as evidenced in the present study, at times, the "market mechanisms" cannot (alone) ensure the system adequacy by themselves.

This happens when (as in the Italian case) the market mechanism is negatively influenced by external factors, such as the requirement for a significant share of electricity to be generated from renewable energy sources, as per environmental protection and EU legislation. These source are by nature, "intermittent", namely "unpredictable", with all the associated risks of general blackouts in case of peak demand and/or absence of production for lack of source (think yourself, for example, the solar source).

On the Italian market, the issue to ensure the system adequacy has set itself increasingly in the foreground as the presence of renewable sources has grown up to 38,2% of the energy overall produced in Italy.

And, just to solve this issue, the Italian legislator has introduced a remuneration mechanism of production capacity of plants powered by fossil fuels, the so-called Capacity Payment, introduced in Italy in 2003, with the Legislative Decree No. 379/2003, in the aftermath of the serious black out on September 28, 2003 that had left all of Italy in the dark.

The Capacity Payment notion: an appropriate solution?

The Capacity Payment is a mechanism by which the network operator (in the Italian case, Terna) seeks to

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[1] In this regard, see. Prof. Carlo Andrea Bollino, The World Madness of energy, editor Rubettino, 2010.

"ensure" in every moment the adequacy of the electrical system, "booking" (in advance) the electric energy production "from reserve" by the producers of electricity from fossil fuels and, therefore, from sources to their programmable nature.

This "reservation" is performed through the payment of an economic remuneration (partly fixed and partly variable) to the producer who – for that particular period –makes electricity available to the system in case of need a certain quantity of electric energy.

What should be noted is that, with regard to the Italian market, the capacity payment mechanism was immediately considered '"inadequate" with respect to its structure, described as a "two-stroke" and "two-speed" mechanism, consisting of:

(i) A transitional or temporary mechanism (the “Transitional Capacity Payment”).

The Transitional Capacity Payment is the mechanism currently in force in Italy.

According to the Transitional Capacity Payment mechanism, the Italian State grants energy producers from programmable sources, located on national territory, who produce energy in the so-called critical days (corresponding to days with an high demand of energy by end users) with variable feed in tariffs.

The feed in tariffs are composed of a fixed fee (called CAP 1) and a variable one (said Si), paid only in the event that energy producers do not reach a minimum level of profitability;

This mechanism (according to the legislator's intentions) should have had a limited effect in a few months' time, namely until the entry in force of the definitive mechanism regime.

(ii) The final mechanism (the “Final Capacity Payment”).

The Final Capacity Payment is the future mechanism of Capacity Payment approved, after a complex consultation process, by the Italian Ministry of the Economic Development only as recently as June 30, 2014, upon the proposal filed by Italian Energy and Gas Authority (namely “AEEG”) in the AEEG 98/2011 resolution.

It is a mechanism intended to reward both energy-producing power plants from a newly built programmable source and existing ones, according to the objectives of productive capacity of the electric system, indicated by the Italian electric network manager.

The Final Capacity Payment is based on a transparent, non-discriminatory and competitive bidding system managed by the system operator (i.e. in Italy Terna) who assigns economic remuneration to participating plants with their bids at auctions to produce electricity in a determined future period (i.e. for the subsequent 4 years following the conclusion of the auction).

Within each auction, the producer who intends to participate must present an offer containing the minimum prizes (Euro/MW year) for which he is willing to provide a certain level of availability of electricity in a specific area relevant for network delivery period which the auction refers to.

The price offered at the auction must lie between a maximum value (the Cap) and a minimum value (Floor) defined by the AEEG before the auction. In each session, and for each relevant area, bids are placed in order of merit and are selected on the basis of that criterion.

The successful bidders of such auctions subscribe a so-called "Standard supply Contract" with Terna under which:

- Terna is obligated to pay electricity producers a fixed sum per year of electric energy supply (Euro/MW year, so-called "premium");
- in exchange for this fixed sum, energy producers assume the responsibility to make the capacity they offered in the auction available (a) firstly to be supplied to end users on the basis of day-ahead plans of supply (the so-called “MGP” - day-ahead market); and (b) secondly to be used as reserve energy (in the said “MSD” - market for Ancillary services.

At the same time, the contractors also assume the responsibility to return any difference between the price of the energy market and the standard established in Standard Supply Contract.

The inadequacy to guarantee the safety of the Italian electric system of such a "two-tier" system was immediately detected in the fact that:

- The Transitional incentive mechanism is still the mechanism currently in force after more than 11 years from the Legislative Decree No. 379/2003, notwithstanding several integrations and amendments, in lieu of being effective only for few months (as in the legislator's intention);

- The details of the Final Capacity Payment mechanism are still to be approved by the Italian Ministry of the Economic Development, even if the Final mechanism at stake will most likely come into force, as the first steps towards its implementation) on September this year, with the holding of the first auctions for the allocation of Standard supply Contracts (as a result of the AEEG resolution 95/2015/eel of which has demanded the early launch of the Capacity Payment System).

It only remains, therefore, that the implementation of a Capacity Payment Regime System (after waiting for over 11 years) takes place, in order to ensure the adequacy of such a tool (based on competitive market mechanism) in ensuring the safety and suitability of the Italian electricity system.
The comparison with the system in the United Kingdom
In the United Kingdom the electricity market has undergone an evolution process which is similar to the liberalisation of the Italian market. And in fact, even this market's liberalization, initially configured as a monopolistic market, began with the establishment of the wholesale energy market (the so-called "Pool").

In this type of liberalised market, the issue of ensuring the security and stability of the power supply had been faced with a "different" method with reference to the Italian solutions (i.e. the Payment Capacity introduced by Legislative Decree No. 379/2003).

This mechanism was the so-called "capacity charge", consisting of the obligation imposed by the state to the electrical market operators to buy a certain amount of production capacity "reserve" through bilateral contracts, in addition to the electric energy supplied for consumption.
The capacity charge, however, did not yield the expected results in terms of system security: The inability to predict (i.e. schedule in advance) the number of active operators in the market, and therefore, the number of operators who buy (for obligation as a matter of law) the electric energy to form the "reserve" system, resulted in the inability to predict the exact quantification of this reserve in advance.

For this reason, this mechanism was abandoned by the end of 2001, when, as a result of the "New Electricity Trading Arrangements" (the so-called "NETA"), the Pool system was replaced by an electrical market system based more on the market regulations. Over the years, however, despite being formally liberalized, 98% of the market still belonged to only six energy fuel companies (the so-called Big Six), of which only one is English and one Scottish.

Such a form of "oligopoly" has essentially resulted in a lack of innovation in the energy technologies in the face of growing electricity demand, with consequence that, to date, reserve margins of energy production in the United Kingdom are very low (around 2% when they should be around 20% to ensure system stability), with evident risk of a general blackout in critical cases.

In order to avert a potential energy crisis, the United Kingdom– similar to Italy – has introduced "in urgency" a remuneration system from the availability of production capacity in the form of Capacity Payment based on auction mechanisms and aimed at ensuring the presence of a sufficient margin of energy production in case of critical situations.

The difference is that in the United Kingdom, a Capacity Payment System (similar to the system of Capacity Payment regime introduced in Italy) has already been enabled by the Government, with the first auctions of allocation capacity which was held in December 2014. As a result, in the United Kingdom the Government has "ensured" the availability of 49.3 GW of electric energy production for the thermal year 2018-2019 at a "lower" price than expected. The first consequence, therefore, namely the application of Capacity Payment based on the system of auctions in the United Kingdom market seems to have been good, although, in that connection, the road towards the security of British energy systems as well as the Italian ones still seem to be long.

Conclusions
The considerations mentioned above, both with reference to the Italian electrical market and to the market in the United Kingdom, show that the guarantee of the adequacy of the electrical system is a fundamental necessity and a key step for future developments of the energy market itself and for the future growth of the entire economy.

However, in the energy sector, it is necessary to adopt long-term strategies because energy systems take decades to develop, in a world that is increasingly thirsty for energy, which is the base for any human activity.

The instruments so far "implemented" by the member states to ensure the safety of the electricity supply even in cases of imbalance have however demonstrated serious profiles of ineffectiveness and inadequacy.
Hence, there is the need for a profound rethinking of these tools, in order to render them:

• more effective (namely, operating exclusively when the problems of park inadequacy from generation cannot be solved with the creation of a new network infrastructure or with alternative measures, as for example, storage of energy and a better management of the application, as clarified by European guidelines of 9 April 2014);
• more European (namely, aimed at the creation of a unique European capacity market and, therefore, make the capacity);
• more selective and competitive.

And in fact, as stressed by Günther Oettinger, former European Energy Commissioner "*energy is at the heart of our economy and of our society. When we invest in the direction of energy we are investing in our future. On the contrary, neglecting energy efficiency and supply chain, we risk encountering deep and irreversible consequences...* ".

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Judgments:

a) Administrative Regional Tribunal of Lombardia Region, judgment issued on October 2013, No. 2310, Section III, on the Transitorial Capacity Payment mechanism;

b) Administrative Regional Tribunal of Lombardia Region, judgment issued on April 2013, No. 862 Section III on application of Legislative Decree No. 379/2003.

ACTIVITIES

Natural Gas Developments in the Eastern Mediterranean: Geopolitical & Economic Challenges

Carola Gegenbauer

The European Centre for Energy and Resource Security (EUCERS) at King's College London organised together with the Atlantic Council U.S. (ACUS), ECO Energy Israel and the Konrad-Adenauer-Stiftung (KAS) a two-day workshop in Jerusalem from 19-20. May 2015. The workshop was hosted in partnership with the Haifa Research Center for Maritime Strategy at the University of Haifa, Truman Institute at The Hebrew University and MITVIM - The Israeli Institute for Regional Foreign Policies.

The workshop was organized to explore the opportunities and challenges for the gas findings in the Eastern Mediterranean Levant Basin, which holds an estimated 3.45 trillion cubic meters of natural gas and 1.7 billion barrels of oil. The potential benefits of this find are manifold: A new income stream for the debt-plagued economies of the region; an additional and relatively clean source of energy for one of the world's largest consumers – Europe; and energy independence for a number of smaller states that would otherwise continue to be almost wholly reliant on foreign imports. Unfortunately, the large discovery has also heightened political tensions in the region. Natural gas finds off the coast of Cyprus have exacerbated relations between Greek and Turkish Cypriots while Israel and Lebanon are in a maritime border dispute in which both countries have declared overlapping boundaries in the Mediterranean Sea.

Moreover, the relationship between Turkey and Israel has come under additional strain, as a result of the latter's cooperation with Cyprus.

In the evening of 19 May 2015, the partners welcomed Hildegard Müller for a dinner speech, Müller is the Chairwoman of the General Executive Management Board of the German Association of Energy and Water Industries (BDEW) and President of the German-Israeli Trade Association. The dinner was hosted at Gourmandises in the centre of Jerusalem and welcomed 30 participants from Israel, Britain, Germany, Cyprus, Turkey and others. **Dr Michael Borchard**, Resident Representative of KAS in Israel welcomed participants and expressed his delight to be part of the adventure over the next two days. Dr Borchard discussed the possibility of energy being put right in the middle of the conflict and has the potential to become a game changer for the region. **Dr Amit Mor,** CEO of Eco Energy Financial & Strategic consulting and Visiting Professor at IDC in Israel, took up this point and referred to the energy in the Eastern Mediterranean but also the energy Jerusalem has in terms of culture and buzz. Dr Mor also thanked the partners for organising the workshop together and explained how the idea for the workshop developed. Two and a half years ago, Dr Mor and EUCERS director **Professor Dr Friedbert Pflüger** met in Istanbul at a conference and discussed the prospects of Eastern Mediterranean gas for regional cooperation and decided to jointly organise a discussion on the topic. Dr Mor then passed the word to Professor Pflüger who welcomed participants and partners and expressed how delighted he was to be back in Israel and meet such a great round to discuss Eastern Mediterranean gas and the prospects for regional cooperation over the next two days. He raised the question if the gas findings will be a benefit or curse for the region. Professor Pflüger referred to the example of Russia and Germany and the gas pipeline deal in the 1970s. The building of pipelines and establishing a long-term project contributed to security in the – back then – unstable relationship between the two countries. With this food for thought Professor Pflüger introduced Hildegard Müller.

Keynote by Hildegard Müller, Chairwoman, General Executive Management Board, German Association of Energy and Water Industries (BDEW)

The overall topic of Ms Müller's keynote was the importance of Eastern Mediterranean Gas for Israel and Europe. She began her keynote by describing the relationship between Israel and Europe and their linkage – not only from the past but also for the future. The discovery of Eastern Mediterranean gas is not only important economically and geopolitically for the region but it could also mean a deeper link for Israel and Europe in the future. With a growing dependence on energy imports and in the face of increasingly tense political relations with Russia, the EU is developing plans to diversify its energy supply and the Eastern Mediterranean was identified by the Energy Union as a strategic partner, said Müller. As the cleanest fossil fuel, Gas is relevant for Europe also in order to contribute in achieving its climate targets. Therefore, Eastern Mediterranean countries and especially Israel is an attractive strategic partner, however, considering political uncertainty and the small volume of gas at the moment (with current levels of 100bcm per annum in the Eastern Mediterranean), the relationship is yet to be defined. In order to consider natural gas transport to Europe, large investments for infrastructure must be financed, which might prove difficult with the current political tensions and the vulnerability of pipelines as terrorist targets. Another option discussed by Ms Müller was LNG development. The higher prices achieved for LNG in Asia however, could make it a more attractive market for Eastern Mediterranean gas than Europe.

Ms Müller concluded with an overview of opportunities and challenges. Opportunities are to deepen the relationship between Europe and Israel and to bring stability and prosperity to the region as well as diversifying the European natural gas supply. Challenges are the political tensions in the region and that quantities currently produced are too low to serve the domestic demand and export to Europe. Another issue is the future of gas in the energy mix around the world in general. These issues also formed part of the discussion with dinner guests afterwards.

20. May 2015, Konrad-Adenauer-Stiftung, Rabbi Akiva 8, Jerusalem 9107901, Israel

The dinner speech the previous night left participants with enough food for thought and the organisers and participants were looking forward to an exciting roundtable discussion spread over three sessions. Dr Borchard welcomed participants to the KAS office in Jerusalem where the workshop was held. **Professor Dr Harry Tzimitras**, Senior Fellow at ACUS and Director of the PRIO Cyprus Centre set the scene for the discussion. Dr Tzimitras urged participants to remain realistic regarding production levels and time scales and to think in a pragmatic way. This was followed by **Dr Nimrod Goren,** founder and chairman of Mitvim **-** The Israeli Institute for Regional Foreign Policies, who raised the question on how geopolitical and economical issues can go together and the role of natural gas as engine for regional cooperation. Dr Goren also pointed out the question of ownership of natural gas in the Eastern Mediterranean. **Dr Aviad Rubin,** Co-Director at Haifa Research Center for Maritime Strategy at the University of Haifa, elaborated further on ownership of natural gas in the Eastern Mediterranean and maritime domain issues.

Panel I - Geopolitical challenges: How can natural gas promote regional cooperation?

Dr Amit Mor, CEO of Eco Energy Financial & Strategic consulting and Visiting Professor at IDC, opened the panel by pointing out that currently, the discovery of natural gas in the Eastern Mediterranean are moderate in global terms and therefore, can only serve the domestic market, but potential exploration could mean for Israel to also export natural gas. This would be especially interesting in light of recent developments in the last few years and the Arab Spring, which changed the balance in the region. Israel changed roles from being an importer of natural gas from Egypt to a potential exporter of natural gas to Egypt.

Dr Mor then introduced **Dr Adnan Vatansever**, Senior Lecturer at King's College London and Associate Director of EUCERS. Dr Vatansever raised two major questions: Can natural gas generally contribute to cooperation or conflict and what are the implications of the Eastern Mediterranean gas discoveries? Regarding the first question, Dr Vatansever pointed out that the emergence of conflicts in the aftermath of a major discovery of hydrocarbons might have to do more with crude oil rather than gas. Natural gas is less prone to be plundered as a resource, and requires much closer coordination among various stakeholders. Examples of cooperation in relation to natural gas are Europe and the USSR (subsequently Russia) as well as Russia and Turkey. The second question deals with the impact of Eastern Mediterranean gas discoveries. He noted, the timing of a discovery is crucial. From an economic standpoint, the timing appears good, as Egypt, formerly a major gas supplier of the region, has become unable to continue its role--at least for now. However, from a political standpoint, there is rising polarisation in the region, which could result into obstacles of project development in the Eastern Mediterranean.

Dr Ehud Eiran of the Center for Marine Strategy & Division of International Relation at the University of Haifa gave the next introductory statement. Dr Eiran focused on the maritime domain disputes and gave an overview on the history of Israeli-Lebanese maritime disputes. Israeli-Lebanese boundaries are not clear and influence exploration rights in the Eastern Mediterranean. This point was also taken up by **Dr Alon Liel,** former general director at the Israel Ministry of Foreign Affairs and Charge D'Affairs at the Israeli Embassy in Turkey. Dr Liel points out that a new peace agreement is not in plan and the instability in Egypt is a threat for regional stability. The example used of the vulnerability of energy projects is the pipeline connecting Egypt and Israel, which has been attacked 15 times. Dr Liel views the notion of an energy resource to be used as a political instrument as an illusion.

Panel II - Economic opportunities for the eastern Mediterranean: Israel's prospects of exporting gas to Egypt, Jordan Palestinian Authority & Turkey

After the coffee break, the second panel discussed economic opportunities of natural gas in the Eastern Mediterranean and was moderated by **Professor Dr Harry Tzimitras**, Senior Fellow at ACUS and Director of the PRIO Cyprus Centre. Dr Tzimitras introduced **Professor Eytan Sheshinski,** Sir Isaac Wolfson Emeritus Professor of Public Finance at The Hebrew University in Jerusalem, who gave an overview of global trends in terms of natural gas and energy prices. Professor Sheshinski focused on the structural, regulatory and monopoly issues in Israel and how the Israeli market has to be reformed to exploit Eastern Mediterranean gas most economically.

Ofer Oberlander, Economist and Project Director at Delek Drilling LP,gave us a practical insight and an overview of natural gas projects. Delek Drilling operates in the Eastern Mediterranean and the largest, private project is Tamar. Although it is entirely private, the project still needs political approval and has been delayed by regulatory issues. According to Mr Oberlander, the main challenge for natural gas projects in the Eastern Mediterranean is the financing and building of infrastructure to connect the gas reservoirs.

Dr Amit Mor, CEO of Eco Energy Israel Financial & Strategic consulting and Visiting Professor at IDC in Israel, came back to the point of investment in energy infrastructure. With the current political situation, attracting investment is not an easy task, said Dr Mor.

Former CEO of British Gas, **Kanat Emiroglu,** today Chairman of the Board for Global Enerji and Senior Advisor to BCG's worldwide energy practice in Turkey, discussed the role of Turkey. Mr Emiroglu views the developments of natural gas in the Eastern Mediterranean as a benefit Turkish-Israeli relations and believes Turkey will play a significant role as a hub of Eastern Mediterranean gas was to be exported.

Panel III - Implications for US/Europe: Which countries stand to benefit most from eastern Mediterranean gas exports?

After lunch the third panel on the implications for Europe and the US was moderated by **Kanat Emiroglu,** Chairman of the Board for Global Enerji and Senior Advisor to BCG's worldwide energy practice in Turkey. He introduced **Dr Frank Umbach**, Research Director at EUCERS. Dr Umbach's presentation gave a global outlook of natural gas markets, with a focus on European diversification options. In his presentation, Dr Umbach highlighted the co-dependence of politics and energy projects. An example is the LNG development in the U.S. If the democrats win the election, there will be likely more support LNG projects, which would form a counterweight to Russia. On the other hand, Russia is also looking for other natural gas export markets considering that Gazprom has an annual over production of 100bcm. Dr Umbach also pointed out in his presentation that demands for natural gas in Europe are stagnating and may be decreasing over the coming years. This is due to strategies to alternative supplies such as renewables and energy efficiency measurements. What that means for natural gas from the Eastern Mediterranean is that the successful development of natural gas projects is not only due to infrastructure but also timing: whichever project is developed first might kill other projects as demand is not unlimited.

The day was concluded with a round up of **Dr Michael Borchard,** Resident Representative, Konrad-Adenauer-Stiftung in Israel and **Professor Dr Friedbert Pflüger**, Director, EUCERS King's College London. Both agreed that all presentations during the workshop were substantial and important remarks were made during the discussions. The main points in relation to natural gas in the Eastern Mediterranean are the on-going political tensions in the region and the unclear boundaries of the Eastern Mediterranean. These points make the area an unstable environment due to the: geographical location for investment in infrastructure projects; the current modest production levels of natural gas in the Eastern Mediterranean; the timing of projects and the question of demand centres. The role of Turkey as an energy hub has proved to be very important to the discussion and partners agreed to a follow-up workshop in Istanbul to discuss the role of Turkey more in depth.

The New Age of Oil: Climate Impact and Market Responses

Carola Gegenbauer

EUCERS in cooperation with the Carnegie Endowment for International Peace hosted an event on Wednesday, 15. April 2015, from 15 - 17.00 at King's College London to mark the European launch of: Know Your Oil: Creating a Global Oil-Climate Index

The event started with a short introduction by Carola Gegenbauer, Operations Coordinator EUCERS, about EUCERS and the cooperation with Carnegie. Then Deborah Gordon, Director of Carnegie's Energy and Climate Program and David Livingston, Associate of Carnegie's Energy and Climate Program presented the first-of-its-kind Oil-Climax Index, which the Carnegie Endowment for International Peace, Stanford University, and the University of Calgary have developed.

David Livingston introduced the new oil-climate index. Oil is a global market, unlike coal and electricity in particular, and this is why the index takes a global look at the impact different types of oil have on climate. He then passed the word to Deborah to present the index and also give a sneak preview of the interactive web tool.

Deborah Gordon started with an overview on various types of oils, physically and chemically, and how different oils affect our climate. Especially in regards to the new age of oil and peak oil, or better the peak of conventional oil, we see an increase of unconventional oils with different climate impacts compared to conventional oils. The question is how to manage them safely, not only in terms of climate change. New types of oil include natural gas liquids, heavy oils, oil sands (bitumens), condensates, extra-heavy oils, oil shale (kerogen), tight shale oils and ultra-deep oils. Deborah then explained the genesis of developing the Oil-Climate Index: To know your oil to know the effect on our climate. The index aims to inform policymakers, industry experts and investors in a climate-constrained future.

To do so, the partners have gathered information of 30 different types of global used oils and their full lifecycle greenhouse gas emissions: downstream, midstream and upstream. Between the 30 oils, the index found a difference of 80% in emissions between the highest GHG oils and lowest GHG oils. The web-tool allows the user to compare GHG emissions of oil under different scenarios. For example GHG emissions per barrel of the different oil types and production stages. The web tool is to be launched at the end of April 2015.

The presentation of the Oil-Climate Index was followed by a discussion with participants. Deborah Gordon and David Livingston were joined by EUCERS Research Associate, Dr Slawomir Raszewski, and the discussion was moderated by Gregory Elders, Senior ESG Analyst at Bloomberg. One of the issues introduced by Gregory included the behaviour of traditional oil companies and how it will have to change given the current situation. Slawomir also added the shift from the traditional notion of energy security to include sustainability and new technologies and how the model presented by the Carnegie Endowment has shown the importance of including combating climate change to ensure energy security.

ANNOUNCEMENTS

KAS Energy Security Fellowship 2015/16

We are delighted to announce that this year, the Konrad Adenauer Foundation (KAS) in London will again be funding a research stay at EUCERS, King's College London. The topic of this year's fellowships is: ***"From Peak Oil to Oil Glut – What Future for Oil?"***

The Konrad-Adenauer-Foundation funds a 12-month research stay for a European Union (EU) resident research Fellow at the European Centre for Energy and Resource Security (EUCERS) at King's College London. The Fellowship includes a stipend of £28,179, which will pay a monthly stipend of £1,879 for the fellow, university fees and conference subsistence.

Application deadline is the 30th of June 2015.

For more information, please visit www.eucers.eu

EUCERS Executive Energy Seminar 2015

The European Centre for Energy and Resource Security (EUCERS) King's College London in cooperation with King's Summer School is offering the EUCERS Executive Energy Seminar (EEES) for the fourth time in 2015. Last year's success of the programme has encouraged us to run the seminar again this year. The one-week seminar titled "***Changes and Challenges in International Energy Markets***", will take place from **13-17 July 2015** and will be chaired by Dr Frank Umbach, Research Director of EUCERS.

Current changes and challenges in the international energy landscape affect the decision making of energy companies. Faced with falling oil prices, political turmoil in energy producing countries as well as transit states and rising resource nationalism, companies need to understand the underlying causes and trends in order to effectively meet these challenges in today's highly complex and competitive climate.

The one-week course will give business leaders the opportunity to explore the key issues affecting energy companies today including geopolitics/ geo-economics, risk management and analysis, emerging global supply/demand centers, technological developments, evolving energy markets and pricing mechanisms, different modes of governance, and the impact of global climate change policies on various sources of energy.

Participants of the course have the opportunity to discuss these topics and exchange views with a select group of internationally renowned energy executives. The week will also feature a workshop organized by EUCERS to discuss with experts from academia, industry, government and media the topic of (re-) emerging energy superpowers.

For further information please contact EUCERS: carola.gegenbauer@kcl.ac.uk or call 020 7848 1912.

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, Associate Director Dr Adnan Vantansever and Research Director Dr Frank Umbach.

28.05.2015 Brussels, Belgium	Friedbert moderated and wound up the first Europe-US LNG Roundtable organized by Central Europe Energy Partners (CEEP) in Brussels.
26.05.2015 Antalya, Turkey	EUCERS' Research Associate Philipp Offenberg is speaking on "Changing European Gas Pricing" at the 38th IAEE International Conference. His presentation is developed in close cooperation with EUCERS' RA Maximilian Kuhn.
20.05.2015 Jerusalem, Israel	Frank presented on the "Implications for US/Europe: Which countries stand to benefit most from eastern Mediterranean gas exports?" at the international conference "Natural Gas Developments in the Eastern Mediterranean: Geopolitical & Economic Challenges", organized by EUCERS, the Konrad-Adenauer-Foundation (KAS) in Israel, the U.S. Atlantic Council, and Eco Energy Israel in partnership with the Haifa Research Center for Maritime Strategy, University of Haifa, Truman Institute at The Hebrew University and MITVIM - The Israeli Institute for Regional Foreign Policies.
19-20.5.2015 Jerusalem, Israel	Friedbert chaired the EUCERS workshop in Jerusalem organised together with the Atlantic Council U.S. (ACUS), ECO Energy Israel and the Konrad Adenauer Foundation (KAS) a two-day workshop in Jerusalem from 19-20. May 2015. The workshop was hosted in partnership with the Haifa Research

	Center for Maritime Strategy at the University of Haifa, Truman Institute at The Hebrew University and MITVIM - The Israeli Institute for Regional Foreign Policies.
11.05.2015 Berlin, Germany	Friedbert moderated a discussion organised by Atlantik-Brücke e.V. on “Geopolitics of fallen oil prices: Opportunities and Challenges for Germany and Europe”.
07.05.2015 Baunatal, Germany	Frank talked about „Die deutsche Energiewende in der Kritik. ‘Grüne Energieinsel‘ versus gemeinsame EU-Energiepolitik und globale Energietrends“ (The German Energy Transition under fire. ‘Green energy island‘ versus unified EU-energy policy and global energy trends) at the 14. KAS-Seminar together with Viessmann Deutschland GmbH.
07.05.2015 Berlin, Germany	On 7th of May Friedbert spoke at the Energy Security Summit 2015, jointly organised by Frankfurter Allgemeine Forum and the Munich Security Conference (MSC) on the topic of “Diversification Strategies for Europe: New Imperatives?".
05.05.2015 Washington DC, U.S.	Friedbert spoke at an event of SAIS at Johns Hopkins in Washington, DC, honouring former German President Richard von Weizsäcker.
04.05.2015 Istanbul, Turkey	Frank presented on “Impacts of Regional Geo-Political Developments on Region/Country Energy Markets and Projects” at the International Conference: “Geopolitical Energy Arena: ‘Shifting Dynamics’”, organized by STEAM.
20.04.2015 London, United Kingdom	Frank talked on “Kazakhstan’s Emergence as an Energy Superpower” at the EUCERS/ISD/KAS Energy Talks on EU-Kazakhstan Relations.

PUBLICATIONS

Dr Frank Umbach shares with us their most recent publications and interviews:

Frank wrote on Die deutsche Energiewende am Scheideweg: Globaler Energiedruck versus grüne Energieinsel” („The German Energiewende at the Crossroads: Global Energy Pressure versus Green Energy Island“), IFRI, Note du Cerfa 122, Paris, May 2015, 27 pp. (for the German version.: http://www.ifri.org/de/publications/enotes/notes-cerfa/die-deutsche-energiewende-am-scheidegeweg-globaler-energiedruck; for the French version: http://www.ifri.org/fr/publications/enotes/notes-cerfa/transition-energetique-allemande-croisee-chemins-pressions-mondiales)

Frank gave an interview on the increasing geopolitical rivalry between India and China (including its energy dimensions and India's a arms imports). See the article by Gabriel Dominguez, 'Deterrence and Power Projection - Why India Remains a Major Arms Importer', at Deutsche Welle (DW), 25 May 2015.

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If you have found our Newsletter interesting, wish to hear more about our activities, or, indeed, contribute with ideas or essays, please contact Carola Gegenbauer, Operations Coordinator EUCERS on carola.gegenbauer@kcl.ac.uk or call 020 7848 1912.

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