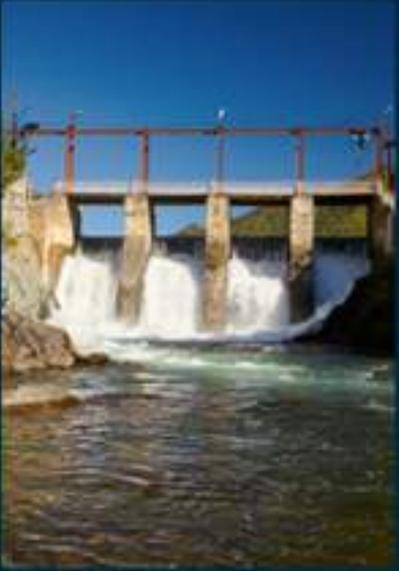




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# EUCERS Newsletter

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

Issue 35  
05/2014

## Introduction

Welcome to the 35<sup>th</sup> edition of the EUCERS Newsletter.

This month's general article section includes a piece by Maria Kottari, Research Associate at EUCERS, on renewable energy developments in the EU with a particular focus on Greece. Furthermore, Eufracia Taylor, Asia Analyst at Maplecroft, writes about the timing, motivations and implications of the recent Russia-China Gas Deal.

In the Activities section, we report from the Second Roundtable Discussion on "*Ukraine/Crimea: Is Shale Gas from the U.S. an Alternative?*" Please also note our next workshop will take place on June 17<sup>th</sup>, at King's College London, with the topic of "*Iraqi-Kurdistan: Capital of Oil and Gas Exploration – What Does it Mean for Europe?*"

We are very happy to announce the continuation of our yearly KAS-Fellowships at EUCERS. Please find further information on this year's two fellowships in the Announcement section. Furthermore, we also would like to draw your attention to this year's Summer School Course and Executive Energy Program. It is with great sadness, however, that we need to announce that Dr Petra Dolata, Research Director at EUCERS will be leaving us. We are however very happy to welcome Dr Adnan Vatansever, Senior Lecturer in the King's Russia Institute, as the new Associate Director at EUCERS.

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

I hope you enjoy the newsletter!

Justus Andreas  
*KAS- Research Fellow at EUCERS, King's College London*

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## ARTICLES

### RES development in the EU - the Greek case: Great potential with modest results?

*Maria Kottari*

The EU renewable energy strategy is a key instrument towards a sustainable energy mix and the reduction of fossil fuels dependence and it is placed amongst the most ambitious ones on a global scale<sup>1</sup>.

The significant support of the EU, and its member-states, for the renewable energies (RE) expansion is reflected in the Directive 2009/28/EC (hereafter the Directive) launched by the European Commission (EC) in 2009. This Directive, introduced binding legislative measures for the implementation of the 20-20-20 set of goals. The Directive includes inter alia the increase of the share of renewable energy, in the total gross final consumption<sup>2</sup> of the EU member-states, to be 20% by 2020. The Directive, also, requires the simplification of the administrative regimes faced by renewable energy, together with improvements to the electricity grid, to improve access for electricity from renewable energy. The "EU package on climate and energy", which was agreed on by the European Parliament and the European Council in December 2008, passed into law in June 2009.

According to the EC's 2013 Renewable Energy Progress Report<sup>3</sup>, since the adoption of the Directive most EU member-states have experienced a significant growth in their renewable energy consumption. As data and analysis prove, the EU as a whole is on its trajectory towards the 2020 targets with a renewable energy share of 13% in 2011. Nevertheless, the RE implementation progress varies greatly across the EU member-states. Germany, Sweden, Denmark and Austria are ranked in the first places of both RE targets implementation and energy production from RE across the different RE technologies while some other states, including Greece, need to undertake additional efforts.

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<sup>1</sup>Kottari M., Roumeliotis P. (2013).RE Governance Challenges within a "puzzled" institutional mapIn Michalena E., Hills J., (ed.) *RE Governance: challenges and Insecurities*, Springer Publisher;series "Lecture Notes in Energy 57: 233-248

<sup>2</sup>Segers R (2008).Three options to calculate the percentage renewable energy: An example for an EU policy debate. *Energy Policy* 36: 3243-3248

<sup>3</sup>[http://ec.europa.eu/energy/renewables/reports/reports\\_en.htm](http://ec.europa.eu/energy/renewables/reports/reports_en.htm)& 2013 Renewable Energy Progress Report , COM (2013) 175: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0175&from=EN>

Maria Kottari is Research Associate at EUCERS and currently Visiting Scholar at the Institute for European Studies at the Free University of Brussels – Université Libre de Bruxelles (ULB). Her PhD Thesis, at Panteion University of Athens, concerns the Energy Policy of the European Union and the role of Eastern Mediterranean region.



Second, as said above, the Directive introduces, for the first time, mandatory national targets. Each member-state should enhance the effectiveness of its RE policy, so as to bridge the gap between the member-states having a well-developed RE industry and those who do not, and in order to create a stable investment environment for the development of all RE technologies. The holistic, target-based logic of this Directive seems, though, to set an important barrier towards the successful local implementation of RE policy and technologies<sup>4</sup>.

Indeed, the issues related to RE are characterized by a great complexity stemming from the variety of potential RE sources and technologies. This complexity results from each member-state's different capabilities and special conditions and factors favouring, or not favouring, the development. Under the provisions of the Directive 2009/28/EC, member-states are required to draw up National RE Action Plans (NREAPs) including the provisions of each member-state<sup>5</sup> to facilitate the RE development in order to achieve the 2020 target. According to the EU Commission Communication of 2011, entitled "Renewable Energy: Progressing towards the 2020", a review of NREAPs shows a faster pace of RE growth for all member-states in the years up to 2020. This fact could signify that the new approach starts bearing fruits.

Indeed, the Directive's article 6 ascertains that the decentralisation of RE technology has many benefits: the utilisation of local energy sources, local jobs creation and the increased local security of energy supply due to shorter transport distances and the reduction of energy transmission losses. However, the flexibility given to each member-state to implement the Directive as it fits to the national context, which often opposes the local benefits<sup>6</sup>

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<sup>4</sup>Michalena E., Hills J. (2012).Renewable energy issues and implementation of European energy policy: The missing generation? *Energy Policy* 45: 201-216

<sup>5</sup>Kitzing L., Mitchell C., Morthorst P. (2012).Renewable energy policies in Europe: Converging or Diverging? *Energy Policy* 51: 192-201

<sup>6</sup>Ostrom E (1990).Governing the commons: The evolution of institutions for collective action. Cambridge University Press &

entails the risk of national failures to meet the 2020 targets at both national and EU level. The EC Communication 2012 (271)<sup>7</sup> entitled "Renewable Energy: a major player in the European energy market", calls for a greater consistency in national approaches in order to avoid the internal market's fragmentation. The Communication pays special attention on the need of cooperation mechanisms to facilitate the trade of RE products amongst the member-states and the openness of the RE market.

**Table 1: Overview of EU member- states progress in 2020 RES target implementation<sup>8</sup>**

Member State	2005 RES share	2010 RES share	1 <sup>st</sup> interim target	2020 RES target
Austria	23.3 %	30,1%	25,4 %	34%
Belgium	2,2%	5,4%	4,4%	13%
Bulgaria	9,4%	13,8%	10,7%	16%
Cyprus	2,9%	5,7%	4,9%	13%
Czech Republic	6,1%	9,4%	7,5%	13%
Germany	5,8%	11%	8,2%	18%
Denmark	17%	22,2%	19,6%	30%
Estonia	18%	24,3%	19,4%	25%
Greece	6,9%	9,7%	9,1%	18%
Spain	8,7%	13,8%	10,9%	20%
Finland	28,5%	33%	30,4%	38%
France	10,3%	13,5%	12,8%	23%
Hungary	4,3%	8,8%	6,0%	13%
Ireland	3,1%	5,8%	5,7%	16%
Italy	5,2%	10,4%	7,6%	17%
Lithuania	15%	19,7%	16,6%	23%
Luxembourg	0,9%	3%	2,9%	11%
Latvia	32,6%	32,6%	34%	40%
Malta	0%	0,4%	2,0%	10%
Netherlands	2,4%	3,8%	4,7%	14%
Poland	7,2%	9,5%	8,8%	15%
Portugal	20,5%	24,6%	22,6%	31%

Romania	17,8%	23,6%	19,0%	24%
Sweden	39,8%	49,1%	41,6%	49%
Slovenia	16%	19,9%	17,8%	25%
Slovakia	6,7%	9,8%	8,2%	14%
UK	1,3%	3,3%	4,0%	15%
EU	8,5%	12,7%	10,7%	20%

Progress towards the first interim target

>2% above interim target

<1% from or <2% above interim target

>1% below interim target

The negative effects of the economic crisis on the RE sector, especially its cost of capital, should not be neglected as well. The economic crisis combined with the delayed infrastructure projects, administration barriers and disruptive changes to support schemes, hampers the full implementation of 2020 RE targets.

The climate and geographic conditions existing in Greece, favour the development of RES especially in the hydropower, wind and solar power sectors. The RES development can produce variable benefits for the country; we could list amongst others the production of clean domestic energy with CO<sub>2</sub> emissions reduction, the reduction of fossil fuels dependency, the enhancement of the energy security of the Greek islands and the power production dispersion, as well as, state fees for the local communities.

Admittedly, during the last decade, renewable energy sources have started to play an increasingly important role in Greece' energy production profile.

In the first semester of 2011, the total installed capacity of RES stood at 2022.2 MW, 75% of which came from wind energy production, 11.5% from solar, and the remaining 13.5% from biomass and hydro-electric production units<sup>9</sup>. Greece has reached its NREAP 1st interim target mainly due to a positive deviation in the heat sector share while the growth in the electricity sector was too slow<sup>10</sup>.

Ostrom E et al (1999). Revisiting the commons: Local Lessons, Global Challenges. *Science* 284(5412): 278-282 DOI: 10.1126/science.284.5412.278

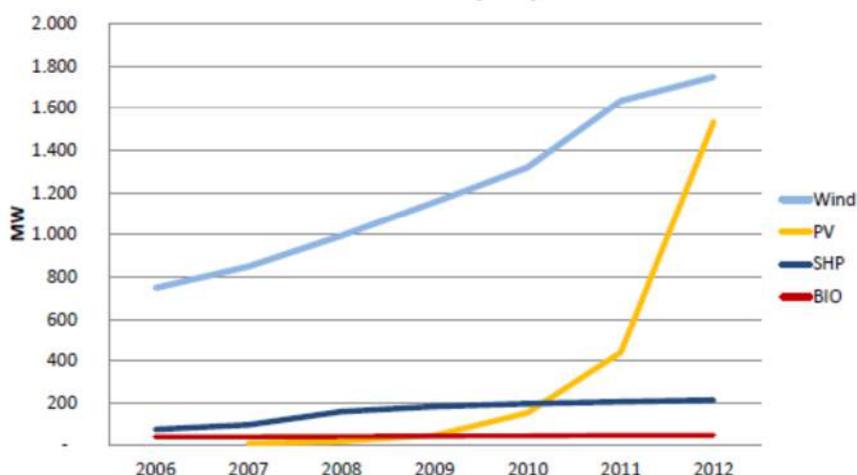
<sup>7</sup><http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0271:FIN:EN:PDF>

<sup>8</sup> 2013 Renewable Energy Progress Report , COM (2013) 175: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0175&from=EN>

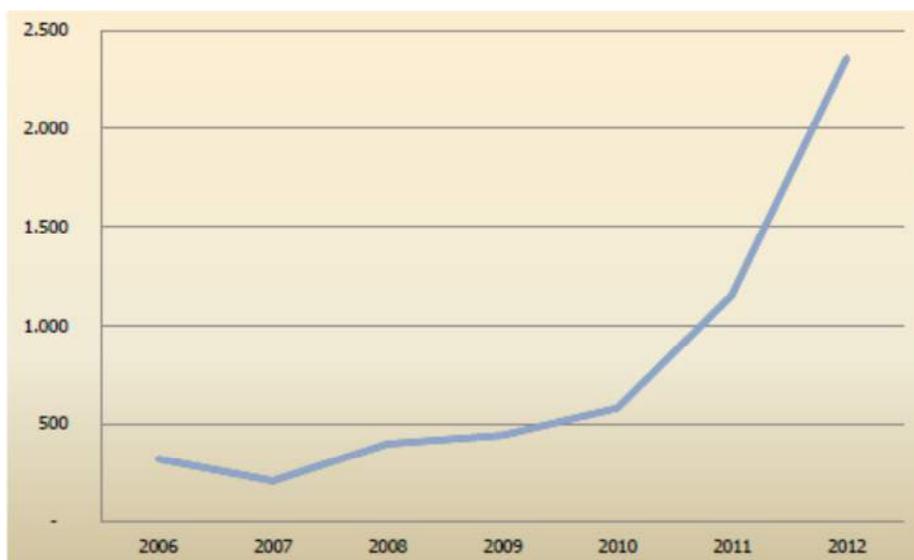
<sup>9</sup><http://www.investingreece.gov.gr/default.asp?pid=38&la=1>

<sup>10</sup> European Renewable Energy Council (EREC) EU Tracking Roadmap 2013 . Keeping track of Renewable Energy targets towards 2020: [http://keepontrack.eu/contents/publicationseutrackingroadmap/roadmap\\_finalversion3.pdf](http://keepontrack.eu/contents/publicationseutrackingroadmap/roadmap_finalversion3.pdf)

**Graphic 1: RES installed capacity (Wind, Photovoltaics, Small Hydro Power projects and Biomass) in Greece (2006-2012)<sup>11</sup>**



**Graphic 2: RES investment per year in Greece, in mil €<sup>12</sup>**



The further development of the RES sector in Greece encounters in various obstacles. Despite the significant advances, the investment environment of RES sector in Greece is still unstable. The fiscal and regulatory frameworks undergo constant changes.

At the first place, the licensing process is particularly long and difficult. The Law 3851/2010<sup>13</sup>, on the acceleration of

<sup>11</sup> Wind Parks Installations Project Development : [http://www.enteka.gr/en/01\\_01.htm](http://www.enteka.gr/en/01_01.htm)  
<sup>12</sup> ibid

the development of RES, transposes partially the EU Directive 2009/28/EC. This law tries to simplify the procedures of the existing licensing regime in order to achieve 40% of electricity production from RES up to 2020.

The provisions of Law 3851/2010 were amended by Article 39 of Law 4062/2012<sup>14</sup>, which fully transposes the Directive 2009/28/EC and includes specific procedures for the licensing regulation. According to the Directive 2009/28/EC, Article 13-paragraph 1, "Member States shall ensure that any national rules concerning the authorization, certification and licensing procedures that applied to plants and associated transmission and distribution network infrastructures for the production of electricity, heating or cooling from renewable energy sources, and to the process of transformation of biomass into biofuels or other energy products, are proportionate and necessary". The efforts for reducing the

licensing bureaucracy in Greece, especially regarding grid connection procedures, have not been successfully concluded. They have created, on the contrary, a "congestion" of applications, thus rendering the holding of binding timeframes questionable<sup>15</sup>. Many investors have experienced repeated delays with the grid connection quotation by the system's operator thus; they cannot implement their RES investments. Besides, general grid connection issues should be taken into account. Peloponnesus grid is saturating while Crete and Aegean islands are not interconnected.

The difficulties in investments financing and the delays in payments from LAGIE<sup>16</sup> (Operator of Electricity Market) and DEDDIE<sup>17</sup> (Hellenic Electricity Distribution

Network Operator S.A.-HEDNO) hinder any further growth of the RES industry. LAGIE and DEDDIE are responsible for

<sup>13</sup><http://www.ypeka.gr/LinkClick.aspx?fileticket=qtIW90JLYs%3d&tabid=37>

<sup>14</sup><http://www.ypeka.gr/LinkClick.aspx?fileticket=7Z1up05Xrto%3d&tabid=777&language=el-GR>

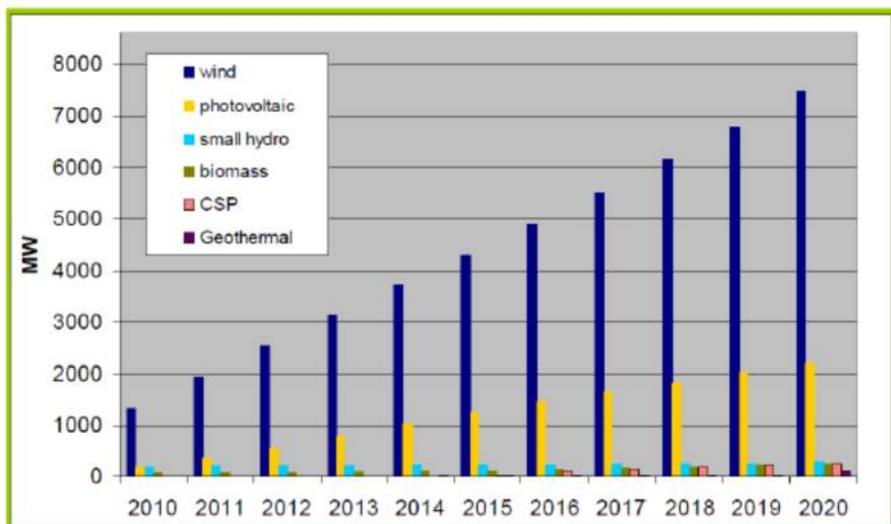
<sup>15</sup>Metaxas A., Tsinisizelis M. (2013). The Development of Renewable Energy Governance in Greece. Examples of a Failed(?) Policy In Michalena E., Hills J., (ed.) *RE Governance: challenges and Insecurities*, Springer Publisher;series "Lecture Notes in Energy 57: 155-168

<sup>16</sup><http://www.lagie.gr/nc/en/home/>

<sup>17</sup><http://www.deddie.gr/en>

collecting the amounts to be paid to RES electricity producers (the so-called RES Special Account), in addition to Feed-In-Tariffs.

**Graphic 3: RES National Action Plan<sup>18</sup>**



A retroactive “solidarity” tax on RES (wind and photovoltaic) has been recently imposed destabilising further the investment environment. This tax is not extended to all electricity producers thus it is discriminatory and favouring the fossil fuels electricity producers. The RES investors are captured in a scheme that reduces their expected incomes, calculated before the tax imposition<sup>19</sup>.

Finally, the local communities are, often, sceptical towards the development of RES and environmental organisations raise their concerns about the environmentally friendly development of the RES technologies. Public awareness on environmental degradation and climate is not very popular in Greece.

The instable financing and legal framework as well imposition of the retroactive “solidarity” tax is incompatible with the overall EU policies for the promotion of RES. The European Commission has repeatedly criticized the imposition of retroactive measures and has highlighted the negative effects these measures may have in promoting investment in RES in the context of reaching EU Energy and Environment Policy targets<sup>20</sup>.

<sup>18</sup> ibid

<sup>19</sup>Metaxas A., Tsinisizelis M. (2013). The Development of Renewable Energy Governance in Greece. Examples of a Failed(?) Policy In Michalena E., Hills J., (ed.) *RE Governance: challenges and Insecurities*, Springer Publisher;series “Lecture Notes in Energy 57: 155-168

<sup>20</sup> ibid

The Directive 2009/28/EC is giving paramount importance in the need of stable investing environment for RES stating in paragraph 14 that “*The purpose of mandatory national targets is to provide certainty for investors and to encourage continuous development of technologies which generate energy from all types of renewable sources*” and in paragraph 26 “*it is desirable that energy prices reflect external costs of energy production and consumption, including as appropriate , environmental, social and healthcare costs*”. Besides, according to the European Commission’s Communication COM (271), “*It is important that we continue to use every tool at our disposal to drive down costs, to ensure renewable energy technologies become competitive and ultimately market driven. Policies which hinder investment in renewable should be revised and in particular, fossil fuel subsidies should be phased out*”.

The EU has recently outlined its energy and climate goals for 2030 through the EC Communication COM (2014) 15<sup>21</sup> entitled “A policy framework for climate and energy in the period from 2020 to 2030”. According to this Communication, the RE target is set up to 27 % by 2030 but it is mandatory only at the European level. There are not to be new binding national RE targets. In other words, the EU member–states are not required directly to adjust their RE energy policy with the EU–wide RE goal. This greater flexibility given, regarding the final national energy mix choices, raises questions about the future development of RES. While one could argue that such a decision is pragmatic by reflecting the slow growth pace due to the economic crisis and the need of lowering the energy prices, this decision could detract the RES development in both national and local level. Some EU member-states, such as the UK, would rather meet their emission targets via nuclear energy investments. For Greece, it remains questionable if the economic conditions of the state could create the appropriate and stable investment environment for a further development of the great RES potential. Besides, even with the imposition of mandatory binding RE targets, we have ascertained that Greece has failed to meet key requirements. Will the call for more solidarity, included in the 2030 framework, amongst EU member-states in order to fulfil the overall RE target, be sufficient to contribute to the further national and local RES development in the country? The current developments and conditions make the argument in favour seem very idealistic and doubtful.

<sup>21</sup><http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0015&from=EN>

## The timing, motivations and implications of the Russia-China gas deal

*Eufracia Taylor*

On Wednesday 21<sup>st</sup> May, Russia and China signed a landmark energy deal which will facilitate the supply of Russian natural gas to China for thirty years. The US\$400 million deal, led by Russia's Gazprom and the China National Petroleum Corporation (CNPC), follows 10 years of negotiation and will see the provision of 38 billion cubic metres (bcm) of natural gas per year channelled through pipelines from Siberia to China.

The existing pipeline, Power of Siberia, runs from Russia's Far East to China's north eastern border and its capacity would allow gas provisions to be expanded to 60bcm per year. The current deal would account for 25% of China's current gas demand, but is estimated to meet only about 10% of China's demand in 2020, when the gas fields and pipelines are expected to be fully operational.<sup>1</sup>

While the deal is undoubtedly a significant achievement for both parties, providing Russia with a stable alternative from its increasingly tumultuous relations with Europe, and aiding China's advancements towards energy security, the practical implications of the deal remain uncertain. A multitude of physical challenges remain before the real or strategic impact of the deal is likely to be realised, primarily in regard to the pricing of the gas and the construction of the necessary infrastructure. Additionally, while the deal is also a landmark in Russian-Chinese relations, it cannot be removed from the wider foreign relations and internal politics of both countries, which will remain able to influence the implementation of the deal.

Although negotiations progressed steadily over the past ten years, they picked up pace during 2013, which saw the signing of a Memorandum of Understanding between Gazprom and CNPC regarding gas pipeline deliveries through the eastern route and later an agreement on the major terms and conditions of the gas supply.<sup>2</sup> However, though finalisation of the deal was widely expected during President Putin's visit in May 2014, scepticism and uncertainty continued until only hours before the deal was announced. This was due in part to Russia's general optimism surrounding the deal, which had led Russian delegates to claim that the deal was 'imminent' for the last few years. Equally, previous delays had been caused by one factor which continues to be somewhat uncertain: agreements over price. The lack of detail provided with the announcement of the deal would indicate that some areas of the agreement are yet to be fully defined, as such, it is

Eufracia Taylor is an Asia Analyst for Maplecroft, a UK-based global risks analytics company, where she focuses on assessing political, regulatory, and security-related risks to foreign investors looking to enter or expand their operations in Asian markets. With a background in aerospace and defence, she also monitors military and defence developments in the Asia-Pacific region.



important to address why the deal was successful at this point when it had failed before.

Russia's motivations for pursuing the finalisation of the deal have been thoroughly addressed by both the media and energy analysts alike. The impact of the Ukraine crisis and the initiation of Western sanctions are difficult to separate from the increased importance of the gas deal for Russia. Although the absolute impact of sanctions can be debated, particularly due to the nature of Europe's dependence on Russian gas supplies, recent events would have served as a firm reminder of Russia's own dependence on European consumers, which account for around 80% of Russia's natural gas exports.<sup>3</sup> While Europe is in no position to transition away from Russian energy provisions in the foreseeable future, the fragile political environment, the emerging shale gas evolution in the US, and assessments of shale gas resources in Europe, have heightened concerns in Moscow over Russia's future role in European energy.

The timing of the deal can also be considered a sizeable achievement in public relations for President Putin, who has come under increasing pressure from political and economic elites in Russia to offer reassurances following the introduction of sanctions, particularly those aimed at the energy sector. Energy exports account for around 50% of Russia's federal revenue and are therefore vital to support Russia's dwindling economic growth, which has become an increasingly pertinent issue in securing Putin's political influence.

China's motivations for pursuing the finalisation of the deal have been somewhat less addressed; focusing primarily on Beijing's much improved bargaining position due to Western sanctions on Russia and attempts to isolate it from the global economy. While this has no doubt advanced China's position of negotiation, particularly in achieving what it deems as an acceptable price, long-term developments in China's pursuit of energy security are also likely to have secured a more favourable bargaining environment for Beijing. For example, although Russian gas will be important to the future of China's energy security policy, it is perhaps less so than in previous years. Over the past five years, China has been successful in securing energy

imports from the Middle East and Australia, establishing pipelines from Turkmenistan and Myanmar, and following the shale gas revolution in the US, has also undertaken assessments of its own huge shale gas resources. As such, China will have benefitted not only from becoming one of the most salient alternatives to the European market, but also from already somewhat mitigating its reliance on Russian gas.

That is not to say, however, that securing the deal is not of great significance to Beijing. Access to gas supplies has become an increasingly pertinent issue as China attempts to move away from its heavy coal use. A transition supported by China's 2012 natural gas policy, which aims to expand natural gas usage from industry to other areas such as transportation.<sup>4</sup> The Energy Information Administration (EIA) estimates that China's natural gas production will grow to 4.2 trillion cubic feet (tcf) by 2020 and reach 10.1tcf by 2040.<sup>5</sup> However, it also estimates that China's demand for gas in 2020 will reach 7.8tcf and 17tcf in 2040,<sup>6</sup> thereby highlighting the importance of Russian gas supplies in filling the gap between energy supply and demand in the future. Reliance on external sources to meet internal demand is likely to continue for coming decades despite China's sizeable natural gas and shale gas deposits, particularly due to technological difficulties in accessing and developing its resources.

Additionally, China's efforts towards energy diversification have not been without its challenges. Regional territorial disputes surrounding maritime boundaries in the East and South China Sea, India's growing maritime interests, and the US' 'pivot to Asia' serve as important reminders of the exposure of its energy transport routes to a relatively unstable maritime environment. Such concerns were further reaffirmed by the events following China's decision to move an oil rig into the disputed area of the Paracel Islands, which saw naval clashes with the Vietnamese and a wave of anti-Chinese violence across Vietnam. Despite China's regional economic and military prowess, it cannot risk the potential regional instability caused by its pressing its regional energy interests too hard, particularly in contested maritime areas. As such, the Russia-China pipeline will provide Beijing with a significant alternative from its reliance on maritime-transported energy and the controversy surrounding exploration in its surrounding waters. Other challenges are also evident in the growing anti-Chinese sentiments surrounding China's Shwe gas pipeline in Myanmar; the security of which remains highly dependent on an uncertain political and economic situation as well as a somewhat fragile ceasefire between the Naypyidaw and rebel groups which operate along the pipeline route.

The timing of the deal and its announcement against the backdrop of the Conference on Interaction and Confidence-Building Measures in Asia (CICA) is also of interest to China's motivations. The decision to announce the deal at the security summit will have served as a stark reminder, to the US in particular, of another key area of Russia-China collaboration: military hardware. The increased importance of the deal to Russia may have not only driven down the price of gas, but may have also shifted other areas of negotiation in Beijing's favour.

Finalisation of the gas deal has come amid news that talks regarding the sale of Russia's Sukhoi SU-35 fighter jets are in advanced stages, a positive development given Russia's traditionally cautious approach to the deal. Similarly, the gas deal was announced only a month or so after China appeared to have finally secured the sale of Russia's S-400 air and missile defence system, becoming the first foreign buyer. Negotiations surrounding the S-400 had also been underway for a considerable period of time, primarily due to Russia's reluctance to share advanced military hardware with China, in part due its past trends in reverse engineering and technology theft, as well as broader concerns with Russia's own military needs.

As such, it becomes clear that the gas deal not only suited China's energy policy at a time when its current transport routes and access to regional deposits appear highly vulnerable to external factors, but the deal also allowed China to advance its bargaining position in relation to other key areas of collaboration with Russia.

However, a number of challenges continue to exist before the implications of the gas deal are likely to be realised. Russian state media announced that a price had been agreed on just a few days after the initial announcement; however, the continuing lack of detail, particularly from the Chinese delegation, would suggest that pricing agreements are yet to be finalised. It is speculated that China has agreed to US\$350 per thousand cubic metres (ptcm), slightly less than what European consumers pay, at around US\$380ptcm. This would arguably mark a success for both the Russian and Chinese parties, though likely a greater victory for Beijing. In 2013, negotiations had been considerably delayed by China's firm stance on a price around US\$100 less than European prices, in part due to the energy subsidies within its domestic market. This price had been roundly rejected by Russian representatives, with some even claiming that due to the significant costs involved in exploration and development of the Siberian gas fields, China should actually have to pay a higher cost than Europe.<sup>7</sup>

Final agreement over gas prices is unlikely to be reached until the two parties also come to an agreement surrounding the respective investments in infrastructure. This in particular is likely to delay operations as Russia has a tendency not to commit to exploration before equal commitments to pipeline construction have been made. At present, Russia has announced plans to invest US\$55 billion in gas exploration and pipeline construction, while Beijing has committed approximately US\$20 billion. However, due to the scale of the pipeline construction, which includes the already completed Power of Siberia pipeline to be extended into China,<sup>8</sup> and the lack of exploration undertaken in the relevant gas fields, the total amount of investment needed to take the deal forward will remain unclear until the gas fields and the pipeline are actually operational. Such an expensive undertaking is likely to cause delays as the two parties attempt to form agreements on a multitude of developmental costs.

As such, political impetus behind the deal will remain essential to its success. While the deal reflects the broader energy concerns of both Russia and China, the strength of political will is going to be continually influenced by local politics, which may also prompt delays with the projects. A highly significant factor in this is likely to be Xi Jinping's anti-corruption drive, which has already targeted five executives of the CNPC since August 2013. As such, investment agreements between Gazprom and CNPC representatives are likely to be under heavy scrutiny and potentially subject to delays as Beijing's anti-graft campaigns continue.

Like all deals of such scale, the finalisation of the deal is the first step. Progress will depend on the broader strategic concerns of both parties, and perhaps more-so, on the local politics of both administrations. While the deal is undoubtedly an achievement for Beijing and Moscow, the practical implications for energy security and geopolitics may not be seen for some years.

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<sup>1</sup> World Oil News Centre, 20 May 2014, Russia, China fail to sign gas agreement. Available at <http://www.worldoil.com/Russia-China-fail-to-sign-gas-agreement.html> [Accessed on 25 May 2014].

<sup>2</sup> Gazprom Press Releases, 22 January 2014, Gazprom and CNPC getting ready to sign contract for Russian gas supply. Available at <http://www.gazprom.com/press/news/2014/january/article182957/> [Accessed 25 May 2014]

<sup>3</sup> EIA, 12 March 2014, Russia. Available at <http://www.eia.gov/countries/analysisbriefs/Russia/russia.pdf> [Accessed 25 May 2014]

<sup>4</sup> The policy is also reflective of growing environmental considerations and increasing awareness of the impact of pollution on societal discontent and economic sustainability.

<sup>5</sup> EIA, 4 February 2014, China. Available at <http://www.eia.gov/countries/analysisbriefs/China/china.pdf> [Accessed 25 May 2014]

<sup>6</sup> EIA, 4 February 2014, China. Available at <http://www.eia.gov/countries/analysisbriefs/China/china.pdf> [Accessed 25 May 2014]

<sup>7</sup> The Belfer Center, May 2014, The Geopolitics of Energy Project. Available at <http://belfercenter.ksg.harvard.edu/files/RussoSinoGas2014%20web.pdf> [Accessed on 25 May 2014].

<sup>8</sup> The Washington Post and Gazprom have published highly informative maps detailing current and projected pipelines which can be found here: <http://rt.com/business/159880-gazprom-china-russia-cnpc/> and here: <http://www.washingtonpost.com/blogs/worldviews/wp/2014/05/21/map-what-the-epic-china-russia-natural-gas-deal-looks-like/>

## ACTIVITIES

### 2nd EUCERS/ISD/KAS Talk

*Justus Andreas*

In this year's series of five roundtable discussions with the general theme of "*Changing Political and Economic Dynamics of Global Energy Flows*", hosted by the European Centre for Energy and Resource Security (EUCERS) together with the Institute for Strategic Dialogue (ISD) and the Konrad Adenauer Foundation (KAS) in London, the second event dealt with the current Ukrainian crisis, its potential implications for the European gas market and the role of liquefied natural gas (LNG) coming from the US. The event under the title "*Ukraine/ Crimea: Is Shale Gas from the U.S. an Alternative*" was attended by members of academia, relevant businesses, the media, as well as government officials and proved to provide a comprehensive picture of the complex situation at hand.

The panel discussion commenced under the moderation of Professor Dr Friedbert Pflüger, director of EUCERS, who in his opening remarks stressed that diversification of energy supplies was as crucial for Europe's energy security as it was for the work of EUCERS. He pointed out that regarding the shale revolution in the U.S., EUCERS already published its very first strategy paper on this topic and its potential implications for Europe in as early as 2011. Professor Pflüger also outlined the internal debates that are taking place in the U.S. with respect to the prospective LNG trade vis-à-vis domestic energy independence. Following Professor Pflüger's opening remarks, Sasha Havlicek, CEO of the Institute for Strategic Dialogue, gave some incitements for the subsequent discussion by inter alia hinting at the fact

that following the recent developments in Ukraine, even the UK's conservative party was bigging up Europe, which always indicated that something was afoot. She also questioned whether a similar shale revolution could take place in Europe, despite the very mixed public and governmental responses so far.



As the first speaker of the panel, **Eric Mamer**, Deputy Head of Cabinet in the DG Energy of the European Commission, stressed that while only a few months ago prices had been the primary focus for the European gas market, since Ukraine, this had shifted towards the actual security of supply. Regarding LNG from the U.S., Mamer also agreed with a statement made by Professor Pflüger earlier that even if LNG would reach the European instead of the Asian market - with its higher prices – this would only constitute a long-term option. He, however, also generally questioned whether an increased dependence on the U.S. was the solution to Europe's problem; "when there already is a U.S. military presence in Europe, does one need a U.S. energy presence?" Mamer instead focused on the need to progressively change the balance of energy, in which for the Commission efficiency remained key. With regard to the Ukrainian crisis, Mamer underlined the importance to maintain open channels towards the East in order to prevent a further escalation of the situation. Generally, he said that the Commission continued to hold on to their 2030 perspective and the overall target to lessen Europe's energy dependence and reduce the degree of imported energy.

**Dr Petra Dolata**, Research Director of EUCERS, moved the focus of the discussion beyond just the U.S., by looking at Canada's role as well, whose Foreign Minister only a few weeks back announced he would be able to supply Europe with natural gas, especially the Baltic States. Dr Dolata stressed that this was in fact a perfect example of the complexity that followed when markets and politics

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intersect. Canada has a vocal Ukrainian community and, at the same time, a far more open energy market than i.e. the U.S., which continued to have several political hurdles for energy security reasons. Furthermore, Canada's dependence on U.S. demand might become an issue in the future considering U.S. production growth through the shale revolution. However, Dr Dolata also pointed out that Canada currently had not a single functioning export terminal and at the same time also required an expanded infrastructure to transport gas to the seven planned terminals – of which only one was situated on its eastern coast. Dr Dolata continued that climate change was further pushing demand for natural gas. In fact the demand side should be a greater focus for policies in response to the recent crisis, since these responses normally had the larger long-term effect compared to short-term actionism targeted at the supply side. Finally, Dr Dolata also outlined several decisive variables such as Australia's LNG ambitions and Chinese own shale gas developments with their respective implications for Asian market prices, which in the end might turn out favourable for the European market considering LNG imports from the U.S..

**Henning Gloystein**, Senior Correspondent and Head of European Power, Gas & Coal at Reuters News, added further insight regarding market developments through his assessment of current price levels. Showing the spot price evolution for the UK and considering the complete costs and hence price for LNG trade, according to Mr Gloystein, profits would continue to be higher for gas companies to sell their goods on the Asian and South American markets. This would most likely also be the case in the near future since Europe was in a situation of backwardation, meaning natural gas would continue to become cheaper on the continent. Nonetheless, by mentioning several new potential market players, such as Mozambique, Tanzania as well as Australia's expansion plans, Mr Gloystein depicted an outlook for Europe in which North-American LNG might not play a big role, however generally, diversified natural gas might still be feasible due to a growing global LNG market in general. To the delight of Dr Dolata, Mr Gloystein also pointed out that one should watch Canada.

Finally, **Dr Frank Umbach**, Associate Director of EUCERS, stressed that there was no silver bullet solution that would improve Europe's energy security but rather a multitude of

approaches were needed. He also returned to the crisis in Ukraine and its energy implications by considering that compared to the last Russian-Ukrainian crisis in 2009, when little alternative sources of supply had been available, today the situation was totally different considering new pipeline options (i.e. Southern Corridor and regional gas interconnectors between EU-member states) and evolving exporters. At the same time, another change was taking place regarding Europe's natural gas demand, which was currently stagnating. Dr Umbach referred to the latest energy outlook by the IEA that expects this trend may even continue through to the year 2035. Furthermore, since many Gazprom contracts were to expire within the next two to three years, according to Dr Umbach, the basic need as well as an opportunity for change was currently developing. Moving to the actual shale developments in the US, Dr Umbach voiced scepticism regarding the pace and likelihood of further LNG approvals in the short-term perspective, especially considering the second instance of approval, the Federal Energy Regulatory Commission. He, however also stressed that if the government wanted to supply Europe with LNG it could overcome the profit differentials through tax incentives and other measures. Hence, U.S. LNG to Europe should not be precluded solely on economic grounds. Furthermore, Europe's own shale gas resources should be taken into account, especially considering their positive economic and geopolitical potential as well as lower greenhouse gas emissions in comparison with long-distance Russian gas pipeline imports. Dr Umbach continued to outline Ukrainian efforts for energy source diversification both regarding gas and oil projects in the Black Sea, which under the current circumstances and their proximity to Crimea are unlikely to continue, but also regarding shale gas developments in its eastern parts where again these are unlikely to continue for the time being. However, Ukraine's shale gas projects in its western region could probably experience a boost in the near future. Finally, Dr Umbach moved to the implications a European energy source diversification might entail for Russia. He primarily stressed the South Stream project, which he called the "most expensive import option" since it also requires Russia to connect its own infrastructure with the Southern Corridor, at an overall cost of \$21 billion. These costs were likely to be covered in the gas contracts of the future, and hence needed to be included in the calculation. In light of recent developments, and the general cost factors, Dr Umbach therefore questioned the justification of the project in addition to the unsolved questions of compliance with the common EU laws (Third Energy Package; Third -Party access etc.). Finally, considering that South Stream had always been a geopolitical project in order to circumvent Ukraine, if the Commission was to support South Stream, Ukraine would

lose valuable transit fees and more importantly its leverage towards Russia considering its importance for the European market. Consequently, "Europe would sell the rope to Russia, on which they will hang Ukraine" as it would allow Russia to increase its pressure on Ukraine contrary to the EU's promise to strengthen its energy cooperation with Ukraine and to reduce its gas dependence on Russia. Dr Umbach hence urged that this geopolitical component needed to be integrated into the current debates on the future of the European energy market and Ukraine.



Following the panel discussion, **Jan-Justus Andreas**, KAS-Research Fellow at EUCERS, and **Dr Maximilian Kuhn**, Research Associate at EUCERS, gave additional comments to the discussion. Mr Andreas generally agreed with the statements considering the Asian and European price differentials' impact potentially resulting in little LNG from the U.S. to reach the European market, and added in this respect the continuously increasing domestic demand for natural gas in the U.S.. He pointed out that this demand increase could coincide with a potentially stagnating or even decreasing production output by the time large scale LNG was to enter the global market. Consequently, current price levels of natural gas could most likely not be maintained, and with increasing domestic prices, the price for LNG would rise as well. Adding also a strategic perspective, Mr Andreas hinted at the fact that Japan had experienced the highest spot prices in its history early this year (above \$20/ Million British Thermal Units) and was largely dependent on fossil fuel exports transiting through the Malacca Straits and the East China Sea which in case of an escalation of i.e. the Islands dispute with China could threaten Japan's energy security. Consequently, also Japan was looking to the U.S. for a more diversified energy supply for its market.

**Dr Maximilian Kuhn**, having the last words of the panel discussion, summed up certain consequences from the

debate, by also extending the focal point beyond natural gas to other liquid fuels. Dr Kuhn stressed both the importance of infrastructure and in this respect the issues regarding European refineries' specialisation on the Russian Naphtha, as well as the low gas price levels in Europe that actually cause much of the LNG reaching the European market to be resold to i.e. Asia. Furthermore, Dr Kuhn also hinted to the fact that energy relations with Russia were more than 50 years old and could not be replaced overnight, yet the increase in interconnectors in the European gas grid since the last crisis in 2009 could potentially enable reverse-flow towards Ukraine. However, in order to expand export, current market restrictions needed to be overcome from a political point of view. Finally, Dr Kuhn concluded that at least since the crisis was taking place now instead of autumn or winter, Europe had not only full gas storages but also some time to deal with this delicate situation.

Following the general debate, a Q&A session gave the audience the possibility to further discuss the variety of mentioned issues and aspects regarding shale gas, the Ukrainian crisis and European energy security. As always, the session itself was followed by a reception enabling further networking among the participants and speakers while enjoying both food and wine. The entire workshop was videotaped and will be available on EUCERS' YouTube channel in due time ([www.youtube.com/EUCERS](http://www.youtube.com/EUCERS)).

## 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.*

## ANNOUNCEMENT

We are very sad to announce that Dr Petra Dolata will leave EUCERS in her capacity as Research Director this year, but would also like to take the opportunity and welcome Dr Adnan Vantansever as new Associate-Director of EUCERS. Dr Dolata's position will be assumed by Dr Frank Umbach. Dr Vantansever is a Senior Lecturer at King's Russia Institute and a senior fellow at the Dinu Patriciu Eurasia Center and the Energy and Environment Program of the Atlantic Council in Washington. He combines a wealth of industry knowledge and experience on energy markets with a robust academic perspective.

We wish Dr Dolata all the best for her future at the Canada Research Chair "History of Energy" at the University of Calgary, and would like to thank her tremendously for her continuous support and commitment to EUCERS.

### 3rd EUCERS/ISD/KAS Energy Talk

The European Centre for Energy and Resource Security (EUCERS) cordially invites you to the third of a series of five roundtable discussions on "*Changing Political and Economic Dynamics of Global Energy Flows*" co-hosted by the Institute for Strategic Dialogue (ISD) and the Konrad Adenauer Foundation (KAS) in London.

Iraqi-Kurdistan: Capital of Oil and Gas Exploration – What Does it Mean for Europe?"

17 June 2014, 11.00 - 13.00 with lunch afterwards ♦ River Room, second floor ♦ King's College London ♦ Strand Campus London WC2R 2LS

Confirmed speakers for introductory statements include

**Prof Dr Friedbert Pflüger**, Director EUCERS

**Hans Hartwig Blomeier**, Director KAS UK Office

**Sasha Havlicek**, CEO ISD

**Mehmet Sepil**, President Genel Energy

**James Jeffrey**, former US Ambassador to Baghdad, Iraq

*In order to attend the event please RSVP to [carola.gegenbauer@kcl.ac.uk](mailto:carola.gegenbauer@kcl.ac.uk) or call 020 7848 1912*

## KAS Energy Security Fellowships

We are delighted to announce that this year, the Konrad Adenauer Foundation (KAS) in London will be funding 2 research stays at EUCERS, King's College London. The topic of this year's fellowships is:

*"(Re-) Emerging Energy Superpowers"*

### 1) Fellowship for a EU Candidate

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 monthly stipend of £1,807 for the fellow, UK/EU university fees and a conference subsistence of £1,082. The topic of this year's Fellowship is "(Re-) Emerging Energy Superpowers".

The application deadline is on June 30, 2014.

For full details of the application procedure, please refer to <http://www.kcl.ac.uk/sspp/departments/warstudies/research/groups/eucers/scholarships-2014-eu.aspx>

### 2) Fellowship for a Brazilian Candidate

The Konrad-Adenauer-Foundation funds a 12-month research stay for a resident research fellow from Brazil at the European Centre for Energy and Resource Security (EUCERS) at King's College London. The Fellowship includes a monthly stipend of £1,807 for the fellow, overseas university fees and a conference subsistence of £1,082. The topic of this year's Fellowship is "(Re-) Emerging Energy Superpowers".

The application deadline is on May 30, 2014.

For full details of the application procedure, please refer to <http://www.kcl.ac.uk/sspp/departments/warstudies/research/groups/eucers/scholarships-2014-brazil.aspx>

*If you have any further questions, please contact Carola Gegenbauer at [carola.gegenbauer@kcl.ac.uk](mailto:carola.gegenbauer@kcl.ac.uk) or call +44 20 7848-1912, or contact Karina Marzano at [karina.marzano@kas.de](mailto:karina.marzano@kas.de) or call +55 21 2220-5441 in Brazil.*

## EUCERS Summer School Program – Global Energy Politics

We are also delighted to announce this year's Summer School Course on "*Global Energy Politics*". The three-week course will commence on July 27, 2014, and is part of the King's College London Summer School program.

The course will offer insight into the mechanisms governing global politics in general and into the field of energy politics in particular. Course participants will study a wide variety of

actors involved in energy policy-making, such as states (energy importers, energy exporters and transit states), intergovernmental organisations, the industry, and NGOs, and will assess the formal and informal connections between these actors and the outcome of their interaction on the global stage. The course will engage with issues such as energy security, the geopolitics of energy, conflict over natural resources, the curse of natural resources in resource rich developing countries, as well as the politics of climate change and its implications for global energy policy.

The program includes lectures on cutting-edge topics and interactive seminars. During this course, learning will take place in a very direct and hands on manner. Attendees will meet with representatives of energy corporations, international energy organisations, NGOs, energy consultants and get the chance to ask them questions about their work and their expertise areas. The schedule includes a visit to an energy production facility, as well as a dynamic two-day simulation of political climate change negotiations. This will allow the participants to place themselves in the shoes of top policy makers and attempt to solve some of the biggest challenges of our time: increasing pollution, energy resources scarcity and climate change.

The application deadline is July 04, 2014. For more information about the course and to apply, please refer to: <https://www.kcl.ac.uk/prospectus/shortcourses/index/name/globalenergypolitics14/keyword/summer-school>

*If you have any further questions, please contact the academic lead, Alexandra Busce at [amb225@cam.ac.uk](mailto:amb225@cam.ac.uk), or contact Carola Gegenbauer at [carola.gegenbauer@kcl.ac.uk](mailto:carola.gegenbauer@kcl.ac.uk) or call +44 20 7848-1912*

## EUCERS Executive Energy Program: Changes & Challenges in International Energy Markets

We finally would also like to draw your attention to our yearly executive summer programme, which will take place from June 30 until July 4, 2014.

Extreme price fluctuations and market volatility, political instability in energy exporting states, rising resource nationalism, and high-impact events like the Fukushima nuclear disaster are just some of the challenges business leaders face in the energy industry.

In order to effectively meet these challenges in today's highly complex and competitive climate, it is important to identify the way that international energy markets are

changing and to understand the underlying causes and trends.

In conjunction with a select group of internationally renowned energy executives, business leaders will have the opportunity to explore the key issues affecting energy companies today including geopolitics/geo-economics, risk management and analysis, emerging global supply/demand centres, 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.

The application deadline is May 30, 2014. For more information about the course and to apply, please refer to: <https://www.kcl.ac.uk/prospectus/shortcourses/index/name/energyprogramme/keyword/executive-summer-school>

***If you have any further questions, please contact Carola Gegenbauer at [carola.gegenbauer@kcl.ac.uk](mailto:carola.gegenbauer@kcl.ac.uk) or call +44 20 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 Frank Umbach and Research Director Dr Petra Dolata.

21.05.2014 Brussels, Belgium	Frank presented on "The Mediterranean Solar Plan" at the EuroMed-Information and Training Seminar for Diplomats "Perspectives for Cooperation in the Euro-Mediterranean Region" at the European Institute for Public Administration (EIPA)	16.05.2014 Geneva, Switzerland	Frank gave a presentation on "What is the Case for a Responsible Shale Gas Development?" at the International Conference: "Responsible Growth Paths: Policies and Practices from the Extractive Sector", Federal Department of Foreign Affairs/The Business Humanitarian Forum
21.05.2014 Astana, Kazakhstan	Friedbert spoke at the Astana Economic Forum on "Renewables, Energy Efficiency – what Germany can offer".	14.05.2014	Friedbert spoke on "Energy, a major stake in the world order: dependencies, interdependencies and independencies" at the Video- Conference GDF Suez on "Which new geopolitical balance in a multipolar world? Which place for Europe?".
20.05.2014 Astana, Kazakhstan	Friedbert gave a keynote at the Nasarbajew University on "The Green and Shale Revolution – Megatrends in International Energy Policy"	14.05.2014 Brussels, Belgium	Frank was a commentator at the Panelist Roundtable "European External Energy Policy – Reorientation in Times of Crisis", at the Bruegel-Institute
20.05.2014 Brussels, Belgium	Frank was a commentator to the Report: "Three Years of Ukraine's Membership in European Energy Community" (DiXi Group, Kiev) at the Expert Workshop "Enhancing European Energy Security Through EU-Ukraine Cooperation", Konrad Adenauer Foundation-European Office	13.05.2014 Rostock, Germany	Frank presented under the title „Die deutsche Energiewende – ein Blick von außen: 'Grüne Energieinsel' versus gemeinsame EU-Energiepolitik und globale Energietrends" (The German Energy Transformation – A Review from Outside: 'Green Energy Island' versus Common EU-Energy Policy and Global Energy Trends"), at the '14. Technical Press Colloquium' by Alstom Germany
		07.05.2014 Königswinter, Germany	Frank gave four presentations on global and European Energy Security, the German Energiewende and cyber threats to energy infrastructures at a Bundeswehr seminar at the Karl-Arnold-Foundation
		30.04.2014 London, UK	Frank presented on "Ukraine/ Crimea: Is Shale Gas from the U.S. an Alternative" at the EUCERS/ISD/KAS Expert Workshop as part of a series of five roundtable discussions with the general theme of "Changing Political and Economic Dynamics of Global Energy Flows Energy Series", at King's College London
		30.04.2014 London, UK	Friedbert chaired the EUCERS/ISD/KAS Energy Talk on "Ukraine/Crimea: Is Shale Gas from the U.S. an Alternative" at King's College London.

## PUBLICATIONS

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

Frank gave an interview under the title of "Turkmenistan Plays the Long Game with Iranian Exchange" with Tom Washington from Interfax Natural Gas Daily on May 14, 2014 (pp.1-2)

Frank published on "Japan's LNG Dilemma and Energy Supply Challenges" with the Geopolitical Information Service (GIS - [www.geopolitical-info.com](http://www.geopolitical-info.com)), on May 14, 2014, (4 pp.)

Frank also wrote on "Asia's LNG Challenges and Its Vision to Compete Economically" for the Geopolitical Information Service (GIS - [www.geopolitical-info.com](http://www.geopolitical-info.com)) on May 7, 2014, (4 pp.).

Frank gave an Interview with Michael Gassmann, Daniel Wetzels and Eduard Steiner for the German newspaper "Die Welt am Sonntag", titled "Putins Einheizer" on 27 April, 2014.  
(<http://www.welt.de/print/wams/wirtschaft/article127344480/Putins-Einheizer.html>)

Frank published an article at Euronews-CommentVisions called "How can Europe and the World Learn from the Development of Shale Gas in the US?" on 17 April, 2014.  
(<http://www.commentvisions.com/discussion/9302/how-can-europe-and-the-world-learn-from-the-development-of-shale-gas-in-the-us-#comment18480>)

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