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23RD ECONOMIC FORUM (2013) IN KRYNICA-ZDRÓJ

Energy security is energy independence

By Witold Nieć

Many politicians and businessmen attended the panel discussion ‘The European Union’s internal energy market – an opportunity for Central Europe?’, which was organised by Central Europe Energy Partners (CEEP), during the 23rd Economic Forum in Krynica-Zdrój, Poland. The debate was chaired by Paweł Olechnowicz, CEO of Grupa LOTOS S.A., and Chairman of the Board of Directors, CEEP.

“When holding discussions about the energy market, we cannot forget that electricity prices are one of the main factors affecting the growth of the economy”, declared Paweł Olechnowicz, opening the session. “Hence my conviction that decisions concerning environmental protection must take into account an assessment of their impact on the economy, which means production costs”, he stressed.

The most important thesis, on which the participants were focused, was the conviction, resulting



‘The European Union’s internal energy market – an opportunity for Central Europe?’, Economic Forum 2013, Krynica – Zdrój, (from left to right): Maricel Popa, Secretary of State, Ministry of the Economy, Trade and the Business Environment, Romania; Yvonne Ruf, Senior Project Manager, Roland Berger Strategy Consultants GmbH, Germany; Jaroslav Neverovic – Minister for Energy, Lithuania; Paweł Olechnowicz, Chairman of the Board of Directors, CEEP; Günter Verheugen - Former Vice-President of the European Commission, Honorary Professor for European Governance, University Viadrina, The European Experience Company GmbH, Potsdam, Germany Germany; Joanna Strzelec Łobodzińska - President of the Management Board, Kompania Węglowa S.A., Poland

23RD ECONOMIC FORUM (2013) IN KRYNICA-ZDRÓJ

Energy security is energy independence



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both from analyses made by Central Europe Energy Partners, as well as from market data - that a return to the path of growth of all the European economies is, and must be, the priority for the next few years.

- "The crisis which we have faced for several years has not ended in the EU: it has clearly accentuated its position", asserted Paweł Olechnowicz. – "We can at best say that the crisis is diminishing, and the situation is gradually improving, but we must not forget that this might be a long process. The forecasts are optimistic, but only if we are talking about Europe, as a whole. When we look at the situation in individual countries, we can see significant differences. I am convinced that the only way which leads to the revival and real economic growth of Europe is to strengthen European competitiveness, both in the EU as a whole, and in each of the Member States", Mr. Olechnowicz concluded.

CLIMATE POLICY MUST NOT BE OPPOSED TO THE ECONOMY.

Meanwhile, according to the opinions of the panel discussion participants, the climate policy seems to be not realistic and fails to reflect the global economic situation. In fact, one gets the impression, that particular regulations are being adopted, when completely detached from the real impact on electricity prices and the EU economy's competitiveness.

- "This must be clearly said: we lack balance between industry and ecology. First of all, as a matter of urgency, we should strengthen the EU economy and its competitiveness in global markets", emphasised Günther Verheugen, the former European Commissioner for Industry and Entrepreneurship.

"This cannot be done without the support of domestic energy sectors in the EU-11 countries for their own energy resources. – Under no circumstances, can we accept a blanket withdrawal from coal, which provides us with a satisfactory level of electricity prices. Without this fuel, we would be confronted with the necessity of drastic increases in electricity prices, which few economies would be able to tolerate", – Maricel Popa, Romanian State Secretary at the Ministry of Economy, warned. – "We should invest in new technologies and solutions, but within moderation and reason - always bearing in mind, the actual state and capacity of our economies", added the Minister.

"One of the ways to facilitate change in European energy policy can be the further strengthening of co-operation in creating a single common European energy market. - This requires the systematic development of interconnectors. It will take time, but in my opinion, it will be successful. The next steps will be the integration of the traditional markets with RES, and a significant reduction of network costs. In the latter's scope, the need for political decisions not only within in-

dividual countries, but across the whole of the EU are necessary", - argued Jaroslav Neverovic, the Minister of Energy of Lithuania.

ENERGY-MIX: - THE AUTONOMOUS AND SOVEREIGN DECISION OF EACH COUNTRY.

The analysis of Central Europe Energy Partners shows that the competitiveness of countries from the EU-11 region will be crucial for their growth and catch-up growth compared to the EU average.

Janusz Lewandowski, European Commissioner for Financial Programming and the Budget, commented that "some politicians and the financial markets generally tend to see Central Europe as a homogeneous block. This is wrong. It is a mistake to throw all countries into one basket. They have different paths of convergence, their energy sectors and policies are also different, and ultimately, the energy-mix should always result from the sovereign decisions of each country ", he concluded.

- Former EU Commissioner, Guenter Verheugen, stated that " the attempt to block the exploration and production of shale gas is for me, an absurdity. You can, on the basis of conjecture and theoretical considerations, deprive yourself of the same opportunity which these materials have given the United States. This is the same mistake, as any attempt to exclude conventional sources of energy".

ENERGY SECURITY IS ENERGY INDEPENDENCE.

"Climate policy must not be opposed to the economy: a policy has to serve, and not limit the economy", stated Joanna Strzelec Łobodzińska, CEO of the Management Board of Kompania Węglowa S.A. "In my view, we should rebuild our energy sector based on coal and lignite (in the countries where the domestic resources are available), at the same time using the newest, available and proven technologies. This will ensure the postulated balance between environmental protection requirements, and the needs, arising from the aspirations of industrial development, job creation and a levelling-up of living conditions throughout the European Union", said Mrs. Strzelec Łobodzińska.

The panel discussion was well-received by the audience, and seen as very constructive, tackling the real problems and challenges concerning the energy sector. ☺



Witold Nieć

Witold Nieć
 journalist specialising in energy and chemical sectors, in Central European markets.

CCS should not hamper industry's development



By Bogdan
Marcinkiewicz

Currently, the European Parliament is guided by the European Commission's Communication regarding the future of carbon capture and storage in Europe.

The Communication directly indicates that implementation of the planned CCS demonstration projects in Europe have

proved up till now to be more difficult, than was initially assumed.

Many factors have influenced the situation, mainly the lack of perspective on long-term profitability, as well as the high costs of carbon capture and storage technology. Currently, very low prices of carbon emissions and the absence of legal restrictions or sufficient incentives to introduce this technology, have caused the situation where there is no economic justification for business entities to invest in CCS.

In my opinion, Europe established CO₂ reduction plans which were too ambitious, and aspires to lead on the global scene as far as the battle against climate change is concerned. On the other hand, developing countries need energy, and it is to be expected that with their further development, the demand for energy will increase, and I have no doubt that applies to the contribution of fossil fuels.

It is hard to disagree with the claim that coal will remain a fuel within the global energy scene for several decades, and Europe must do everything to align coal utilisation with the targets of CO₂ emission reduction.

During the current Commission ITRE works on the proposed notations, all of the debating parties have indicated that CCS technology is not currently at the sufficient fully-grown technical level, so as to reliably forecast its widespread implementation within the prospective period of time. In fact, all of the eight currently operational CCS demonstration projects have been implemented outside Europe.

The scarcity of interest in the commercial development of CCS projects within the European Union, is primarily the outcome of prohibitive high investment costs and profitability guarantees. . In the present economic situation, even with additional funding within the European economic recovery plan, which has allocated nearly 1 billion euros for CCS demonstration projects, European industry has no motivation to invest in the CCS field.

CEEP REPORT QUESTIONS TO MR. MARCINKIEWICZ

Q: What are the main obstacles hampering formation of a sufficient number of CCS projects, making the creation of them difficult?

A: It is necessary to change the attitude to support for the development of CO₂ sequestration technology/capturing technology. Since direct mechanisms of stimulation turned out to be less than encouraging, the most reasonable approach to CCS now seems to be the one, based on the assumption that the present level of CCS technology development requires the accomplishment of a larger number of smaller pilot projects, enabling the execution of the efficiency and safety trials of differing carbon dioxide capturing and its storage methods. If realisation of the above-mentioned pro-

jects ends positively, it will be possible to step forward to a stage of commercial utilisation of the installation, which in future, can in turn be the relevant market stimulus for investing in CCS installations. Furthermore, the necessary information campaign for society should be also financed. Thanks to that, it should be possible to break the 'lack of information' barriers and the resistance to the perspective, yet widely unknown CO₂ technology relating to its geological storage.

Cheap energy is essential for the EU's economy. At the moment, coal still constitutes over 40% of electric energy production in Europe, despite the billions spent on RES. . There are a number of clean coal technologies, , especially in the area of efficiency improvements of power and heat generation. These technologies require further development. In the EU, it is necessary to modernise existing installations, combusting fossil fuels, in order to limit the emission of harmful substances, as well as to build new, highly-efficient power units on the basis of CCS technology development. However, as the highest cost of energy in the world exists in the EU, the criteria of the price of such installations must be the fundamental factor to overcome.

Q: Should the energy companies invest in the CCS ready equipment at this stage, when CCS is not feasible yet, as this decreases the profitability of investments?

A: Article 33 of the CCS directive for the accomplishment of CCS-ready obligations imposed on new power stations combusting fossil fuels with the capacity of 300 MWe, does not define precisely the requirements to install special appliances, but it obliges the undertaking of actions eliminating obstacles to later modernisation for CCS purposes. Any changes to this article in the direction of strengthening the demands for the CCS-ready stage, when there is no experience of the CCS demonstration stage, is unjustified.

The Geopolitics of the US Shale Revolution



Wolfgang Ischinger



Friedbert Pflüger

By Wolfgang Ischinger and Friedbert Pflüger

When highlighting the significance of the shale revolution in North America, look no further than Qatar's decision, as the world's leading exporter of liquefied natural gas (LNG), to move into North American gas production in April 2013. Together with their British partner, Centrica, the Qatari

were happy to invest one billion USD to join in this 'brave new (gas) world'.

In Europe, by contrast, public debate is focused less on the opportunities than on the risks of shale gas and oil extraction, also known as 'fracking'. However, in this continent, the strategic significance of unconventional oil and gas production and the resultant shift in geopolitical power has simply not yet been sufficiently understood:

- Thanks to lower gas prices, the US has gained a competitive advantage over Europe and Asia, with a more energy-intensive industry, in particular, reaping the benefits. Thus, BASF has announced its intention to build three new factories in the US. In view of this development, what will become of Germany as an industrial location for these sectors?

- In 2009, the US overtook Russia as the world's leading producer of gas and is likely to move into the export business as early as 2016, with 25 LNG export plants - for instance, to South Korea, Israel, Singapore and Jordan - having already been approved.

- In addition, new deep sea discoveries and shale gas will ren-

der the US practically independent of oil imports by 2025, or thereabouts.

- This could significantly reduce the US trade deficit, 58 percent of which is currently attributable to fossil fuel imports. Moreover, lower energy prices will mean that consumers have more money to spend, thus increasing consumption and boosting growth.

Following the OPEC oil embargo of 1973, the US announced its intention to become independent of oil and gas imports by developing its own resources. Forty years later, the US might now actually reach this goal. In any case, there is little talk these days of the much-evoked "end of the American era". The fact that the US is turning into a gas exporter will reinforce the existing trends towards a global gas market, independent of oil price indexing which currently still dominates.

This, in turn, will put pressure on Gazprom's existing business model of generating major, steady export revenue from long-term pipeline contracts in Europe. Against a background of increasing diversification of European gas imports - besides three new LNG terminals, from 2018, gas will be transported to Europe from Azerbaijan via the Transadriatic Pipeline (TAP) for the first time - Gazprom will have to significantly adjust its pricing in order to hold onto its market

The Geopolitics of the US Shale Revolution

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share, much to the detriment of the Russian budget.

Middle Eastern oil and gas producing countries such as Saudi Arabia, Kuwait and Qatar, will also have to face a similar situation, which will be new for them: as they, too, will only be able to defend their market share by lowering prices. They, too, will have to envisage shrinking public budgets - as well as all the resulting problems that could ensue for the political stability of the region.

We may pertinently ask: what about China? Although the 'Middle Kingdom' has even greater shale gas reserves at its disposal than the US, it is still a long way off from becoming a gas world power, due to its lack of production capacity and trained personnel. In China, in the last two years, roughly the same amount of shale gas was extracted as in North Dakota, in the last two weeks. Since fracking, which is necessary for this type of production, requires a substantial amount of water, a shale revolution in China is proving difficult, not least because of the water shortages there.

The shale revolution demonstrates just how quickly energy policy prognoses can change. At a meeting of the core group of the Munich Security Conference in Doha in May, motivated by the growing energy independence of the US, representatives of the Gulf States were already talking of

their fears of a US withdrawal from the Middle-East and the resulting power vacuum in the Gulf. Such perceptions are of strategic significance. Indeed, any reduction in the US presence there, would affect the power balance in the Near and Middle-East, resulting in potentially significant consequences for Europe's interests as well.

After all, our dependence on fossil fuel imports will continue to grow over the next two decades, irrespective of the German move towards alternative energy sources. At the same time, Europe will no longer be able to rely on the US securing our energy lifelines from the Gulf in the long-term. In this respect, European energy security policy will inevitably have to confront a new strategic task and the question remains as to whether we will be up to it. ☺

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Friedbert Pflüger,
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UPCOMING EVENTS



**40.ENERGIEGESPRÄCH
AM REICHSTAG**

In Kooperation mit





We are pleased to announce that, Professor Dr. Friedbert Pflüger, Director of EUCERS, Janusz Reiter, President and Founder of the Centre for International Relations, and Central Europe Energy Partners (CEEP), invite you to the '40th ENERGIEGESPRÄCH – Am Reichstag', which will held on the 27th of September, 2013, in Berlin.

Among the guests to be presented, are: Manfred Greis - Proxy of the Viessmann Werke GmbH& Co.KG and President of BDH – Bundesindustrieverband Deutschland Haus, Energie und Umwelttechnik e.V., and Thomas Bareiß – Co-ordinator for the energy policy CDU/CSU – Bundestagsfraktion.

The panel discussion will focus on the following topic: 'Climate change – the key for energy change'.

If you are interested in participating, please let us know as soon as possible, sending your e-mail to: pflueger@friedbert-pflueger.de

After Nabucco – Croatia to the Rescue of Central Europe's Energy Security?



David Koranyi



Ian Brzezinski



Matthew Bryza

By David Koranyi, Ian Brzezinski and Matthew Bryza

With the “death” of Nabucco, it seems that the EU strategy to diversify gas supplies to Central and South East European member states has failed miserably. Yet according to David Koranyi, Ian Brzezinski and Matthew Bryza of the Atlantic Council there are other ways to reduce these countries’ dependence on Russian gas supplies. They can work to expand gas interconnections in the EU. And, perhaps even more importantly, they can source US shale gas supplies – through the planned LNG terminal at Krk on the Adriatic Coast. But to make a “US-Croatia gas corridor” a success, the Croatian government should finally make up its mind to build the terminal. And the US and EU should take decisive action to support the project.

The decision of the Shah Deniz consortium last June to move forward with the Trans-Adriatic Pipeline (TAP) that will bring Azeri natural gas to Europe brought to life the vision of the Southern Gas Corridor that will help diversify Europe’s sources of natural

gas. At first glance, it would appear that by selecting TAP over Nabucco as the European leg of the Corridor, the Shah Deniz consortium has undercut the decade-old effort to diversify Central Europe’s heavily Russian-gas dependent economies with the help of gas from the Caspian region. Upon deeper reflection, however, this is not necessarily the case.

Though TAP bypasses the Balkan and Central European countries that comprised Nabucco’s route, viable options remain to diversify Bulgaria, Romania, Hungary, and Austria away from their current monopolist supplier, Russia’s Gazprom. Such options will help these countries strengthen their security of gas supplies and their negotiating positions vis-à-vis Gazprom, which will remain an important natural gas supplier to Europe for decades.

Some Western strategists lament what they view as TAP’s lesser geopolitical significance compared with Nabucco. They rightly argue that Nabucco would diversify natural gas supplies to Central and Southeast European countries that currently suffer from an 80%

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to 100% dependence on Gazprom, which has contributed to higher domestic prices and geopolitical vulnerabilities.

But despite this geopolitical advantage, Nabucco failed for a complex variety of reasons, mostly commercial in nature. Consequently, several of Central Europe’s key industries will continue to suffer from a serious competitive disadvantage due to higher wholesale gas prices compared to well-diversified Western Europe. Some countries in the region are soon up for renegotiations of their long-term gas supply contracts with Russia’s Gazprom. While Russian gas cannot be substituted entirely, these countries crave security of supply and negotiating leverage in the form of access to alternative sources of gas supply.

BACKBONE

So what are the options now for these Southeastern and Central European countries? They can secure diversification via three major avenues, all interrelated:

- Developing natural gas interconnections

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within the region and with Western Europe to ensure that the benefits of market liquidity and hub-based pricing make their way to Central Europe; this will eliminate isolated markets that can be easily divided and conquered by a monopoly.

- Creating access to LNG supplies via a terminal at Krk, Croatia, from a wide variety of countries, including the U.S.
- Connecting TAP with Bulgaria (via the Interconnector Greece-Bulgaria) and eventually the Western Balkans (via the prospective Ionian-Adriatic Pipeline or IAP), in keeping with the Shah Deniz consortium's current commercial ambitions.

Taken together, these three approaches form the backbone of a North-South Gas Corridor linking all of Central Europe's gas systems from Poland to Croatia. The basic concept is not new: it has been around since the inception of the New European Transmission System (NETS) project championed by Hungarian energy company MOL in the mid-2000s. The corridor's northern end, the Swinoujscie LNG terminal in Poland, is already under construction and should be

ready by the end of 2014. Interconnectors between Poland and Slovakia, as well as Slovakia and Hungary, are in the making. A key additional step would be to establish reverse flow on the pipeline currently connecting Ukraine to Slovakia, on which discussions are already under way.

BICKERING AND MEDDLING

With Nabucco's defeat, the big missing piece in this North-South Corridor is new sources of supply. Two major projects can deliver such supplies into the network of gas interconnections that is now emerging in Europe: TAP itself (when it becomes connected to Central and East Europe at a later stage) and the planned LNG terminal in Krk, Croatia.

The Croatian LNG terminal would be the quickest option to improve the whole region's natural gas supply security. But in order to realize the project, the Croatian and regional governments have to back it up unequivocally and with vigor.

Yet, unfortunately, Croatia is sending contradictory signals to international partners and investors about its strategic priorities. A case in point is Croatia's misguided acqui-



escence to building a branch from Serbia to South Stream, Gazprom's project to protect its monopoly in Central and Eastern Europe. While more supply route options seem attractive at first sight, betting on multiple

projects at once can prove self-defeating eventually. Prioritizing and sequencing therefore is of crucial importance.

Mercifully, after years of paralysis because of both domestic Croatian political bickering

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and external (mainly Russian) meddling, the LNG project's prospects have improved lately. Croatia's domestic political impasse may finally be clearing, thanks to the Milanovic government's ambition for Croatia to become an energy transit gateway into Central and Eastern Europe. Croatian Economy Minister Vrdoljak has signaled the government's intention to sign an agreement on the Krk terminal by the end of this year. If all goes well the terminal can be ready to receive shipments by 2016 the latest.

URGENT BOOST

TAP is now also moving ahead under its own commercial momentum. As Shah Deniz consortium members negotiate the pipeline's final legal and other technical details, they are also looking toward options for connecting TAP with Bulgaria (via an Interconnector between Greece and Bulgaria) and with the Western Balkans via IAP. Given sufficient quantities from the Caspian, TAP-IAP could also add to supplies in the Western Balkans and in Central Europe by the early 2020s.

Croatia would now be wise to indicate to prospective investors and to Brussels that it

is fully committed to Krk LNG as a top priority and a matter of urgency. The Croatian LNG terminal requires an urgent boost from regional governments and from the European Union. The Croatian government, together with the commercial consortia that will develop both projects, should ask the European Union to designate the LNG terminal and also IAP as Projects of Common Interest (PCI), thereby securing co-financing from the EU's Connecting Europe Facility – similar to the funding Swinoujscie received.

Given their interest in diversifying their own supplies of natural gas and helping the EU establish a single and unified European energy market, the Visegrad countries (Hungary, Poland, the Czech Republic, and Slovakia) coupled with Romania, Bulgaria, and Ukraine, should support Croatia's effort to achieve the PCI status. The consortia developing both projects should pursue gas sales/purchase commitments from key regional consumers like Ukraine, Slovakia and Hungary. Adding reverse flow capability to the Hungarian-Croatian interconnector will allow LNG from Krk, as well as Azerbaijani gas from TAP, to reach Central Europe.

LNG FOR NATO

An additional key factor in realizing the full potential of a North-South Corridor for European natural gas transit is securing lower cost supplies of LNG. One of the world's most prospective future suppliers of low-cost LNG is the United States. Thanks to the revolution in shale gas production, the U.S. has emerged as one of the world's largest natural gas producers. An excess of supply coupled with the world's most liquid natural gas trading system are keeping domestic gas prices low in the U.S.

Market forces are driving U.S. companies to seek opportunities to export LNG to higher priced markets in Europe and Asia. But, federal regulations and legislation currently restrict U.S. LNG exports in a bid to boost American industries (especially petrochemicals) by locking in cheap natural gas within the U.S. If Washington yields to the same market forces that generated the boom in U.S. natural gas production, U.S. LNG could provide that crucial supply of low-cost natural gas that will help ensure the success of Europe's emerging North-South Corridor.

The Visegrad-Plus group and the EU should encourage the adoption of the LNG for NATO bill proposed by then-Senator Lugar in 2012, which is now being pressed forward by Senator Barrasso and Representative Turner. This would allow expedited licensing for LNG exports to NATO allies, (placing such countries on an equal footing with other countries with which the U.S. enjoys a free trade agreement). Increasing available supplies to Europe that help reduce prices and diversify Central Europe's access to energy supplies would be a strategic victory for the transatlantic alliance. 

David Koranyi, Deputy Director of the Atlantic Council's Dinu Patriciu Eurasia Center

Ian Brzezinski, Senior Fellow with the Atlantic Council's Brent Scowcroft Center on International Security

Matthew Bryza, Ambassador, is a Senior Fellow with the Atlantic Council's Dinu Patriciu Eurasia Center and Director of the International Centre for Defence Studies in Tallinn.

How smart is smart metering?



Petra Erler

by Petra Erler

Smart metering is considered to be an important element of the European energy system of the future. It should provide for transparency in energy consumption in real time, and thus, will encourage behavioural changes. Therefore, it is assumed that smart metering will substantially contribute to energy efficiency. That is why the EU requests the application of smart meters in new or substantially renovated buildings. It also tasked Member States in 2012 to ensure the application of smart metering in at least 80% of households by 2020. EU legislation, however, allows Member States to deviate from this goal, if such deviation is based on the findings of cost-benefit analysis.

This is why the German Ministry of the Economy has commissioned Ernst & Young to implement a comprehensive study about the challenges of the potential introduction of smart metering in Germany. The results of this lengthy study (more than 250 pages) are sobering, and confirm the results of earlier studies: the costs of introducing smart metering would by far outweigh its benefits for the average household. Following Ernst & Young's findings, this is notably due to the relatively low margin of the energy reduction potential of the average consumer. Therefore, the study suggests focusing only on big energy consumers, who may have a huge reduction potential, and thus, may be able to compensate for the installation costs and maintaining smart meters.

However, the recent Ernst & Young study does not only deal with the likely costs of a general shift towards smart metering for consumers. The study also raises a number of interesting questions, which merit further attention. Regardless of the chosen technology, smart metering would lead to an increase in IT communications, which implies numerous challenges for the security of data. The whole system may become more vulnerable to Cyber attacks. More importantly, smart metering poses new challenges for data protection, since the instruments provide detailed information about the energy-based footprint of any person in his/her private environment. Based on the information from the installed smart meters, someone would be able to trace the daily behaviour of any person, a situation which may infringe the core right of an individual's privacy and make people also more susceptible to criminal attacks.

The study also examines the experiences of other EU Member States, such as the UK, France, Italy and Sweden. All of these countries have undertaken massive efforts to ensure modern metering. However, none of these countries have achieved a massive roll out of smart metering, which would comply with the EU legislation of 2012. The study does not look into the Austrian approach, which had adopted an ambitious smart metering strategy in 2011, which was aimed at a roll out of smart meters of 95%. Austria, however, revised its strategy in 2013, which now leaves it up to consumers, whether they opt for smart meters or not.

The results of the Ernst & Young study will now be discussed by experts in Germany. The first reaction from the responsible Ministry of the Economy in Germany, pointing to the primary goal of containing energy costs for consumers, indicates that smart metering will probably not become a mainstream application.

Petra Erler,

a Doctor and Managing Director of the European Experience Company (EEC). In 1999, she joined the European Commission as a member of the cabinet of Commissioner Verheugen, and continued during the second term of VicePresident, Verheugen, in the Commission, responsible for enterprise and industry and then as a Head of his cabinet (from 2006 to 2010).

Climate Change – can we afford it ?



By Bogdan Janicki

Poland is due to host a Conference (COP-19) at Warsaw in November this year, concerning climate issues, which is the 19th conference under the auspices of the UN and follows on from the recent ones organised in Copenhagen (2009), Cancun (2010), Durban (2011), and Doha (2012).

WHAT IS THE MAIN AIM OF THE CONFERENCE?

It was observed by many scientists that concentration of CO₂ in the atmosphere has been increasing since it was first measured at the time of Europe's industrialisation and then, the rest of the world. At the same time, average temperatures have been increasing and these have been associated with CO₂ emissions. An increase by 2 degrees Celsius, not only has been identified for the planet as ongoing, but is considered as dangerous for the whole of mankind. Many movements have therefore been developed defending the atmosphere, whilst ex-Vice-President of the US, Al Gore, was awarded the Nobel Prize as a defender of the world's climate. There are strong voices of other scientists who claim that an increase of global temperature is not connected with



Source : (Daily Mail) MailOnline September 13th ,2013

Climate Change – can we afford it ?

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mankind's activities, because they have a rather negligible influence on climate change, but we can observe a natural cycle on Earth, where in the past, there was much more CO₂ and the temperature of the climate was, in fact, much higher.

I don't want to say or to judge who is right and who is wrong. My approach is different. We should care for a clean environment breathing in clean air, without any poisoning effects of CO₂ and other gases. That is why I support all efforts leading to a cleaner planet and climate. This is definitely the greatest challenge facing all of mankind.

HOW IS THE CHALLENGE UNDERSTOOD?

The challenge is understood in a positive way by practically all countries all over the world and many positive declarations/pledges have been made. The leading role is played by the EU, supported by OECD countries and the G-20, not excluding developing economies. It seems that understanding of the problem is excellent and any multinational agreement can be easily reached. Unfortunately, 'the devil is in the particulars'. To name some of them: different levels of economic development and their further perspectives, different geographical influences on RES, different indigenous sources of energy, and different legal philosophies - should any solution suggested to the countries be obligatory or based on pledges, and what are the international consequences for non-fulfilment of their obligations, if any?

HOW TO MEASURE CO₂ EMISSIONS: IN % OR TONNES?

All discussions have been based on percentage references to particular countries. What does it mean when we say that country x has decreased its CO₂ emissions by 20% from 1990 up to now, or by even more? It does not say anything to the average person as he/she does not know what 20% actually means for Australia, and what 20% means for the EU. Using percentages in the discussion of CO₂ emissions is not always clear-cut, because it does not show the actual economic strength and development of a particular country. That is why I appreciate Central Europe Energy Partner's proposal to refer in all post-2020 documents using 'tonnes per capita' rather than percentages. 'Tonnes per capita' is a clearer reference for everybody and easy for comparative studies, as everyone concerned already knows the actual emissions. That is why to better understand the whole situation and the differences, I will utilise 'tonnes per capita' rather than percentages.

'EASIER SAID THAN DONE'

We have to take note of huge differences in economic developments all over the world, and the aspirations of many countries to develop their economies through industrialisation. In the majority of cases, industrialisation means more CO₂ emissions. Take, for example, a wealthy country as the US, where emissions per capita in 2011 amounted to 17.3 tonnes; Canada 16.2; Australia 19; Japan 9.8; Russia 12.8; and South Korea 12.6; whereas the average in Europe was 7.5 tonnes.

CO₂ emissions in „reference countries” per capita in 2011

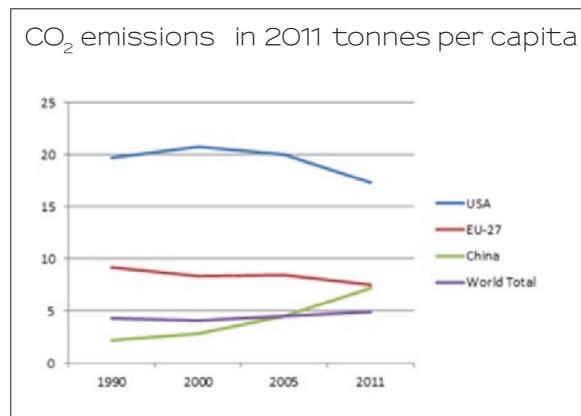
USA	17,3	India	1,6
Canada	16,2	Brazil	2,3
Australia	19,0	Turkey	3,8
Japan	9,8	Indonesia	2,0
Russia	12,8	South Africa	7,2
South Korea	12,6	EU	7,5
China	7,2		

Source: Joint Research Centre (JRC)

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It's evident that the EU had to spend a lot of money to curb CO₂ emissions. The average figure for the world is 4.9 tonnes, as of 2011. If we discuss the global effect, we should underline that the majority of countries are even below the EU level. The biggest emitter in the world, China, is quickly catching up with the EU average of 7.5 tonnes per capita. China has to face a disastrous situation, because their pollution is very much concentrated in industrial areas, where local populations are also located in large numbers. Many big countries are in fact much below



the EU average level of 7.5 tonnes; for example, India, which has got 1.6 tonnes only; Brazil 2.3; and Turkey 2. This means that they will not be very keen to decrease their emissions, but to

increase them through investments, as they have ambitions to catch up with the developed economies. I do not see anyone stopping their ambitions.

As a matter of fact, the world is divided into two blocks. Countries crossing the EU benchmark of 7.5 tonnes of CO₂ emissions per capita, and those which emit much less. Some of the countries which are above the EU average are, at the same time, relatively rich and the biggest emitters, and they should come down to the EU benchmark.

'PAYING LIP SERVICE' TO CLIMATE CHANGE?

We should realise that there is a lot of propaganda in many countries, aimed at convincing their populations, that they are going to do a lot to defend polar bears and protect the climate. No one can say that nothing has been achieved, but the results are very modest in global terms. The biggest progress can be observed in the EU, which is criticised by many entrepreneurs for spending money on climate protection, as it means a decrease of its competitiveness, which has already been lost to China, and nowadays, we observe the same process in relation to the United States. Wolfgang Eder, Chief Executive, of Voestalpine, an Austrian steel-making company, recently stated that, "the exodus has started in the chemical, automotive, and steel industries. If Europe doesn't change course, that process will accelerate, and at some point, may not be reversible." Companies following suit include: Royal Dutch Shell, Wacker Chemie, BASF, Vallourec, etc. The USA is building on its shale gas bonanza and attracts foreign investors, but even usage of gas as a cleaner source of energy in comparison to coal, will not solve the issue

of CO₂ decreases, whilst a recent statement from President Obama, so enthusiastically welcomed by green movements, leads nowhere. His speech on CO₂ emissions, which referred to coal-fired power plants having to be shut down, was not, in reality, a transformational stance, but simply telling everyone the obvious. The US has to close them down because they are already too old. According to the National Association of Regulatory Utility Commissioners, about 74% of all coal-fired power plants in the USA are at least 30 years old, and the average life of such plants is just 40 years. According to me, it would be much better to hear that the US is going to decrease their CO₂ emissions per capita to the level of 10 tonnes by 2020, from the level of 17.3 tonnes in 2011. Nobody is expecting that, but why do we in the EU have to go much below 7 tonnes per capita by 2020? Are we so wealthy, and are we alone in the world when it comes to understanding the importance of the climate issue?

The pledges made by 90 countries during the last Climate Conference have been implemented to about 30% only, with the exception again being the EU, which has fulfilled all its obligations. Unfortunately, the EU's impact on the world's CO₂ emissions is only below 11%.

IS THE SITUATION IN THE EU UNIFORM?

Today, the energy-mix remains within the national sovereignty of Member States. While the French energy-mix contains 78% of nuclear power generation, 48% of the electrical power in Denmark is generated from coal. Wind is not blowing with the same efficiency in Scotland as in Poland, and the sun is not so richly available for energy generation in Lithuania as in Italy or Greece.

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One should admit that the EU's policy to lower CO₂ emissions is very successful in comparison to the rest of the world, and a suitable programme has been adopted to control the level of emissions. The yearly decrease of 1.74% of CO₂ under the ETS scheme is regularly achieved. It does not mean that everybody is happy with this scheme, and wants to increase the CO₂ price allowances. The fight against/for 'backloading', divided the EU Parliament. So, if we in Europe cannot find consensus, how can we expect there to be global understanding during the Climate conference? For the time being, we do not know how to solve very big differences between the EU countries, where average emissions per capita is 7.5 tonnes (2011), and yet emissions in Luxembourg are, at the same time, 19.2 tonnes per capita, whereas in Romania they are only 4.5 tonnes. The GDP per capita for these countries, is, respectively, in 2012 – Euro 83,600 and 6,200, but percentage-wise, these countries have to decrease their emissions by 20% by 2020. Romania should have the right for higher emissions, if it wants to catch up with the EU-15's GDP

Emissions of CO₂ in the EU per capita in 2011

Belgium	9,81	Malta	3,95	Latvia	3,71
Denmark	8,15	Netherlands	9,80	Lithuania	4,69
Germany	9,90	Austria	8,58	Hungary	5,71
Ireland	9,48	Portugal	4,71	Poland	9,10
Greece	8,14	Finland	10,27	Romania	4,50
Spain	6,40	Sweden	4,86	Slovenia	9,03
France	5,70	U.K.	7,50	Slovakia	7,48
Italy	6,70	Bulgaria	7,28	Croatia	6,31
Cyprus	7,09	Czech Rep.	11,65	EU average	7,5
Luxembourg	19,24	Estonia	13,72		

Source: Joint Research Centre (JRC)

per capita at the level of Euros 29,700 as per 2012 statistics.

The very fast development of RES evokes a lot of discussion, as this is the most expensive source of energy, and nowadays, the enthusiasm for RES is not so high as a result. To take only the example of wind energy in the years 2005 to 2011, we have seen an increase of installed wind generation capacity by 2,000% per capita in Central Europe, and 130% per capita in the EU-15, and this trend is continuing. Progress is being made with photovoltaics and hydro, too. Clearly, the low prices of CO₂ allowances do not stop the development of RES. Adversely, a lot of countries have problems with rapid absorption and integration of the quickly-developing RES sector. Mr. Gerard Mestrallet of GDF Suez says: "Due to the uncontrolled development of RES in Western Europe, the economic sense of existing gas-power plants is in danger. We and E.ON have closed - in recent years - 19,000 MW in this technology". Mrs. Merkel's recently-expressed opinion was that further levels of subsidy for RES should be re-discussed and decreased, as well as harmonised with the

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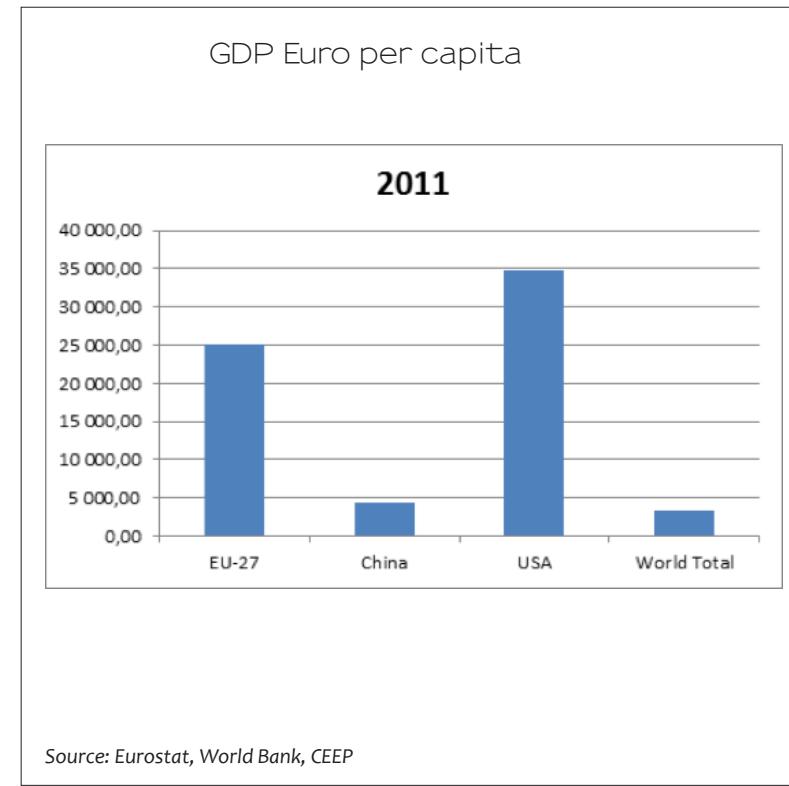
>>> CONTINUATION from p.13

electrical grid's capacity. Poland, the Czech Republic, and other countries bordering Germany, have experienced major problems with uncontrolled RES energy flows into their grid networks. That seems to be a reason why so many countries are considering a decrease in subsidies for RES, to gain more time for sustainable absorption of RES development. It is no secret that RES is the most expensive source of energy. If, for example, the cost of generation of energy based on fossil fuels is one, then for wind it will be two, and for solar it will be almost four. We in the EU need affordable energy, and one of the most prosperous countries is Germany, where, according to Matt McGrath from BBC News, "around 50% of an average (consumer) bill will be made up of taxes and levies for renewables".

WHO SHOULD BE IN THE FIRST RANKS?

It seems evident that the richer countries should contribute to a CO₂ decrease of emissions more than countries with weak economies. It has to be underlined that OECD countries emit 80% of total industrial emissions in the world.

Richer countries can be covered by the EU, OECD, and G-20. The contribution should be more or less equal to all of these developed countries in the perspective up to 2030 and denominated not in percentages, which is not



just, but in tonnes per capita. According to my calculations, the figure of 7.1 tonnes per capita in 2030 should be accepted by all these countries.

As for developing countries, they should be helped by the wealthier ones with delivery of BAT (Best Available Technologies), to have the chance to develop with the lowest possible CO₂ emissions.

SUGGESTIONS FOR THE CONFERENCE

1. For a better understanding by the world's population of CO₂ emissions, a switch should seriously be considered from percentage denomination into tonnes per capita.
2. Richer countries who are the biggest emitters (EU/OECD/G-20) should define their level of emissions by 2030, at 7.1 tonnes per capita.
3. Developing countries should get proper aid to deploy BAT in their development. ☺

Bogdan Janicki
 Senior Advisor
 Grupa LOTOS & CEEP

Templin Solar Power Plant, Germany



by Philipp Krakau

Philipp Krakau

On August 2nd, the solar power plant in Templin/Brandenburg, Germany, was inaugurated. The plant is an impressive example of usage of remote land for renewable energy. Belectric invested around 200 million EUR in this 128.6 MW solar park, comprising some 212 hectares, which will serve about 36,000 households and create the largest solar plant in Europe.

Jürgen Trittin, Chairman of the Green parliamentary group in the Bundestag and former Federal Minister for the Environment, Nature Conservation and Nuclear Safety in Germany, opened the solar site by saying that “this park proves that we were right in setting up the Renewable Energy Law”. He further asserted - albeit already in election campaign mode - that “we now need to set the track in order to continue with the Energiewende successfully”. The appearance of Trittin shows the significant importance of solar power for German and European energy supply, and this was highlighted by the added presence of the Economic Minister of the State of Brandenburg, Christoffers (from the Left Party), who emphasised the important role of renewable energy in Brandenburg.

Besides Trittin and Christoffers, Bernhard Beck and Martin



Templin Solar Power Plant, Germany, Source of information: Belectric

Zembsch of Belectric, and Andreas Köhler (Commerz Real, the ‘daughter’ of Commerzbank, and a main source of finance) were also present.

Approximately 500 participants in the opening ceremony got a tour through the park, and then socialised, whilst having food and drinks. ☺

Philipp Krakau

Consultant, Pflüger International Consulting

UPCOMING EVENTS

On behalf of Dr. Christian Ehler, MEP, and Mr. Bogdan Marcinkiewicz, MEP, as well as Mr. Janusz Luks, CEEP’s CEO, we would like to invite you to the ‘21st European Round Table on Coal: – ‘Intelligent Coal Mining: Corporate and R&D Strategies to 2020 and beyond’, which will take place on the 24th September, 2013, from 10.30 - 12:30 in the European Parliament. Central Europe Energy Partners is the co-partner of the event.

The first item on the agenda is the presentation: ‘Doubling output from the Lublin coal basin to power Poland from Europe’s biggest underground coal mine’ by Mr. Zbigniew Stopa and Mr. Roger de Bazelaire, President and Vice-President of the Management Board, Lubelski Węgiel Bogdanka S.A. The mine plans to increase production from 8 million tonnes per annum to 12 Mtpa by 2018. The proven reserves ensure production at this level until 2050. LW ‘Bogdanka’ employs the very latest information technologies at its ‘intelligent mine’ to maintain the mine’s competitiveness, and aims to take a 20% share of the Polish coal market.

The second item on the agenda is ‘Ten Years’ Successful Coal R&D in the EU – monitoring and assessment of the RFCS Programme’ which will be introduced by Mr. Alan Haigh, Head of Unit at the EC Research Fund for Coal and Steel, who will present results from the Commission’s recent monitoring and assessment exercise covering the period 2002-2012.

For further details, contact CEEP at: brussels@ceep.be



UPCOMING EVENTS



CEEP invites you to take part in the forthcoming Future of BIOFUELS Policy, Environment and Technology Conference. This event, which CEEP is supporting as a Media Partner, will bring together valued participants from Industry, Academia, Research Organisations, Institutes, and all other associations with an interest in the production, processing and use of sustainable biofuels.

Influenced by the latest European Union Biofuel directives, market demand, and encouraging policy changes with regards to the agriculture sector, our agenda was created to stimulate a debate amongst renewable energy pioneers, with innovative topics likely to analyse and explain challenges and opportunities for the energy market and Poland.

The event will be held from the 9th to the 10th of October, 2013, in Poznań.

Our association will be represented by Mr. Bogdan Janicki, Senior Adviser of CEEP, who will introduce the prospects for development of biofuels in the EU.

For all CEEP representatives, there is a special price registration fee which costs 395 Euro!!!

The Registration form and more information can be found on: <http://futurebiofuels.eu/>

Please bear in mind that due to the interactive format of the conference, the number of spaces is strictly limited!

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