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COVER STORY

Maroš Šefčovič: Liquefied Natural Gas for even landlocked countries

Maroš Šefčovič

Vice-President of the European Commission
in charge of Energy Union

Liquefied natural gas has been part of Europe's energy supply, for just as long as piped gas. In fact, Europe was the world's first LNG market, and the very first LNG ship came from the US, when the *Methane Pioneer*, a converted World War II cargo ship, delivered LNG from Louisiana to the Canvey Island LNG terminal in England, in February, 1959.

Despite an early start, up until now, Europe has not had a comprehensive LNG strategy, encompassing the entire EU. In the current political climate, where Member States clearly recognise the benefit and importance of an integrated energy market, the time is clearly ripe to present the first EU LNG Strategy.

In recent years, our concerns for the security of supply have been aggravated, mainly due to the geo-political situation to the east of the EU. At the same time, we have witnessed a transition of the gas markets, which have become global, rather than regional. Given these two coinciding trends, the European Commission has decided to propose an LNG Strategy, which will be put on the table at the beginning of 2016. In parallel to this, we will propose a revision of the Regulation on the Security of Gas Supply.

The objective of the new LNG and Storage Strategy is to identify whether EU action – internal and external – may be necessary in the medium to longer-term period, in order to ensure that all Member States, in particular, those in Central and South-Eastern Europe, have direct or indirect access to both LNG and sufficient storage capacity.

We strive to allow even LNG-access, not only to coastal Member States, but also for those which are landlocked, through other EU members. We will prioritise infrastructure projects and cost-efficient solutions that will bring us closer to the "Ideal Map". This "Ideal Map" will consist of LNG and/or interconnections, reverse flows where necessary, regional co-operation, etc. We will also continue to eliminate cross-border



gas trade barriers, focusing on sufficient gas storage infrastructure in the EU, and ensuring access to storages on a regional basis, when responding to market challenges.

We will concentrate, not only on the internal EU energy market, but will also propose actions within international LNG markets, and our need to fill up our storages and pipelines in Europe. In recent years, the US has moved from energy scarcity to energy abundance, recently surpassing Russia in its natural gas production, and becoming a global leader. Given the American gas surplus, both sides of the Atlantic could greatly benefit from transatlantic LNG trade. A free trade in the energy market (whether through TTIP or separately) would also allow EU domestic refiners and chemical companies to access competitively-priced crude oils and gas. On the EU side, however, we need to 'do our homework' to facilitate the transatlantic LNG trade.

The European Commission sees this as a crucial element of its LNG Strategy, and is, therefore, ready for this task. ■



The video message from Maroš Šefčovič for the Europe-US LNG Roundtable II is available at: www.ceep.be/sefcovic-transatlantic-roundtable-on-Ing/

EDITORIAL

Climate goals demand a global coalition

Marcin Bodio

CEO, Central Europe Energy Partners

As you read this issue of the CEEP Report, the UN Climate Conference (COP-21) in Paris will probably have already started. We expect to witness numerous visions, proving that ‘another world is possible’. We also have a vision, and will work hard to make it visible.

What does CEEP perceive to be an ideal International Climate Change Agreement? It is a world based on infrastructural integration, diversified energy markets, and enhanced industrial competitiveness. A world actively facing such challenges, as population growth, impoverishment, and energy poverty. None of these problems can be tackled alone, on a strictly national or regional basis. To achieve long-standing success, targets and solutions must be based on global agreements.

This is exactly what we have called for in our recent position papers, which we have handed to the representatives of the European Commission, and presented in this issue of the CEEP Report. As regards the Climate Summit, we support the kind of agreement that fosters a global ‘level playing field’ economically, and minimises ‘carbon leakage’. We strongly believe that the EU’s climate policy may only be successful, if it is based on global arrangements. At the moment, although the EU’s Member States are responsible for only 11% of worldwide greenhouse gas emissions, they take the lead in their reduction. If other countries, such as the United States, Russia, or China, do not accept similar burdens, the competitiveness of the European economy may fall dramatically.

CEEP supports the concept of climate neutrality, which should be included in the final COP-21 agreement, as it provides a balance between emissions and absorption. This allows industry to develop and makes the world greener. We also underline the need for transition from today’s GHG emissions reduction presented in percentages, to targets based on emissions per capita. This way of presenting data shows the huge gap between the EU, which emits around 7.5 tonnes of CO₂ per capita, and the US, Canada, and Australia, whose emissions are all double that figure. This also proves that climate goals demand a global coalition.

As the Climate Summit continues, we should make sure that all decisions are taken, based on the precise data, which present the actual image of the greenhouse gas emissions in each country in the world. This precision is also highly needed, as regards new regulations, which may significantly



“ We strongly believe that the EU’s climate policy may only be successful, if it is based on global arrangements. At the moment, although the EU’s Member States are responsible for only 11% of worldwide greenhouse gas emissions, they take the lead in their reduction

reduce the competitiveness of EU industry. As the European Commission has proposed revising the Industrial Emissions Directive, concerns are being raised over the financial implications for the energy sector, as well as energy-intensive industries in Europe. That is why we have called upon the European Commission, to prepare detailed impact assessments of the new legislative measures, including the aspects of energy security and competitiveness.

Whenever major decisions are being prepared or taken at the international level, CEEP is there, ready and ever willing to stand up for Central Europe’s energy sector and energy-intensive industries. ■

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CEEP Position Paper in view of an International Climate Change Agreement

at the UN Climate Conference (COP-21) in Paris
(30th November – 11th December, 2015)

1. Introduction

A new global agreement is expected to be signed at COP-21 in Paris and implemented from 2020. The result of a global agreement should be an obligation of all countries of the world to deal with the problem of greenhouse gas emissions.

The world faces many challenges – population growth, impoverishment, lack of nutrition and energy poverty. Challenges related to climate change draw the public's attention to the fight against climate changes, and solutions should be implemented that will also help to solve other major global problems. Such efforts should aim to reduce differences in the economic development of regions and countries. To achieve this, targets must be based on global agreements. Climate targets should take into account the transition from today's GHG emissions reduction presented in percentages, to targets based on GHG emissions per capita.

Countries with lower GDP per capita should have greater limits on GHG emissions, than the richest countries, in order to equalize differences in economic development and the standard of living of citizens. Consumption based GHG emissions will eliminate the carbon leakage problem. Therefore, adequate efforts should be made to develop methodologies for consumption based GHG emissions assessment.

The concept of 'climate neutrality' should be included in the final COP 21 agreement, as it provides a balance between emissions and absorption. This allows industry to develop and makes the world more green.

CEEP supports the kind of agreement that fosters a global 'level playing field' economically, and minimizes 'carbon leakage'. From our point of view, the participation of all countries in the world is key to the agreement.

2. Reflections

The European Council in October 2014 adopted ambitious targets for the EU's Climate and Energy Policy. The package was announced one year prior to the COP21 United Nations Climate Conference to be held in Paris in November and December 2015. The EU's Climate and Energy Framework can thus be seen as an attempt by the EU to take the lead in reducing worldwide GHG emissions.

The objectives behind the future agreement are very ambitious, and the role of Europe in this conference is very important, in promoting the adoption by all the participating countries of collective commitments which are crucial to fighting global warming. The EU will obviously set out to take a leading role in Paris, with its stated target of an "at least 40%" reduction on 1990 levels. The EU's Climate Commissioner recently called upon the major emerging economies to follow suit, and all the EU countries, plus Norway, have agreed to his call.

Achieving the goals of reducing GHG emissions, impro-

ving energy efficiency and increasing the share of renewable sources in the energy mix represents a particular challenge for the EU-11 due to a number of specific characteristics of the region's current energy system. Most importantly, carbon intensive fuels account for a much higher share of the energy mix in the EU-11 compared to the EU-17. This is primarily due to a considerably higher overall reliance on solid fuels.

While solids account for only 12% of Gross Inland Energy Consumption in EU-17 countries, they represent 36% of the EU-11's energy mix. However, it is worth pointing out that EU-11 countries emit per capita significantly smaller amounts of greenhouse gases than the EU-17. Moreover, absolute energy consumption per capita is still significantly lower in the EU-11 than in the EU-17.

Turning to the energy efficiency of production processes in the economy, the EU-11 countries are characterized by significantly higher levels of energy intensity in comparison with their EU-17 peers. On average, 206 kgoe are consumed by the industry sector per EUR 1,000 of GDP generated in industry in the EU-11, compared to only 131 kgoe in the EU-17. This reveals significant energy efficiency shortcomings in the EU-11 industry sector.

Furthermore, transmission losses are significantly higher in the EU-11 than in the EU-17, reflecting problems in the grid infrastructure. While transmission losses amount to 9% of Total Net Production of electricity in the EU-11, they only account for 6% in the EU-17 economies. In sum, relatively low energy efficiency of industrial production and transmission make the energy system transformation required to achieve the EU targets, a much bigger challenge for the EU-11, compared to the EU-17.

Ongoing debates in Europe, which we have been witnessing for a number of years, focusing on whether it is better to decrease CO₂ emissions by 30%, or perhaps even 40%, have been deprived of the solid calculations behind their potential impact on the European economy, and Europe's competitiveness in relation to other global players. In 2014, we witnessed an unexpected success in the "battle" for data transparency. In recent years, we have been arguing that CO₂ emissions should be reported annually, and in "tonnes per capita", as only this provides a clear image of where we stand, and the data duly becomes more transparent and comprehensible.

For many years, our argument has only manifested itself at specialised debates. However, in late 2014, identical thinking was displayed by scientists from the Paris Dauphine University. Hopefully, it is a sign of things to come. CEEP's publications and papers are characterised by their scientific rigour, and they present an in-depth analysis of the described issues. We hope that our forthcoming publications will be met with similar appreciation. ►

POSITION PAPER

CEEP Position Paper in view of an International Climate Change Agreement

CONTINUED

3. Facts to be taken into consideration

3.1. A comprehensive international agreement on global climate protection must be achieved: There is a real risk that EU CO₂ policies may prove ineffective in terms of changing the global emissions landscape, as over 90% of emissions will take place outside the EU. Concerted efforts at the global level which translate into an international deal are the best way to address climate change. Global warming cannot effectively be combated at national or European level alone. It is crucial that other major countries, such as China and the USA, commit to comparable ambitious targets, such as those of the EU.

3.2. Replacement of the oldest and obsolete generation facilities: Most of the EU-11 countries' energy generation facilities were built many years ago. After that, due to the transformation of their economies, the demand for electricity dropped significantly, which caused those countries to discourage large investments in the energy generation sector. The units under operation are now becoming obsolete. Based on the publicly available information regarding the age of generation units in the EU, over 38% of generation capacity in EU-28 countries is over 30 years old. Therefore, the need for replacement of large power plants in a relatively short period, is substantially higher in the EU-11 region, and it will require considerable funds to be invested.

3.3. Investment and innovation funds: Using existing EU funds is a starting point – however, more needs to be done to provide access to financing instruments, and to move a larger share of the EU budget into funds to support the modernisation of the energy system, including coal power plants with 46% of their efficiency, enjoying derogation from ETS till 2030. The threshold of the EIB for acquiring funds for coal power plants is not realistic at all. We are convinced that innovations will contribute substantially to CO₂ emissions

reductions.

3.4. Co-generation: The development of high-efficiency cogeneration in the EU-11 is one of the more effective factors in CO₂ reduction, so a significant effort should be made towards developing a support system for optimal high-efficiency cogeneration after 2018. This support system should give the opportunity for development of cogeneration power productions, while it would not cause excessive costs to customers.

3.5. Carbon leakage list: Energy-intensive industries in Central Europe such as, chemical, fertilizers, steel, aluminum, refineries, etc., should be included in the Carbon Leakage List covering 100% of these industries and their capacities, in order to maintain international competitiveness

3.6. Renewable energy sources: The development of RES is currently heavily supported by the EU. Wind and solar technologies should be supported where needed. The real potential of biomass and hydro power plants (including pump power plants) should be also properly assessed. At the current stage of their development, RES cannot replace the existing, traditional power system, but their potential should be used as far as it is economically, ecologically and technically possible.

3.7. Gas-fired power plants: Thanks to the possibility of a fast start up, gas-fired units should be developed to support the development of RES and improve the security of the grid operation. The confirmation of significant and economically viable LNG imports from the US can significantly influence its price and change the role of gas as an energy carrier. In that case, the extensive use of gas as a base load fuel could be possible. None of the above cited energy generation technologies can satisfy all electricity demand and a mix of it has to be created.

3.8. Energy price – affordable energy: Climate policy influences energy prices which is a crucial factor for the development of industry, competitiveness and social aspects. That is why, it is so important for the EU countries that the economic burden connected with climate policy will concern at least the world's key players, and CO₂ should be measured equally per capita. ■

COMMENTARY

**Bogdan Janicki**Senior Advisor,
Central Europe Energy Partners

For many years, we have witnessed the constant tightening of the environmental regulations that impact upon the competitiveness of the European industry. Unfortunately, economic arguments are rarely heard at the EU level. Yet, the fact is that the EU's share in global GDP has fallen dramatically from 30% five years ago, to 25% now. This is also due to the unilateral adoption of extremely ambitious climate goals. That is why we believe that failure to reach a global agreement at the conference in Paris will be dangerous for Europe

OPINION

COP-21: Will it deliver a breakthrough in the global action against climate change?



Alessandro Bartelloni

Policy Director, FuelsEurope

We certainly hope so. Climate change is real and warrants action. It is a global challenge, requiring effective measures to be undertaken by all significant world economies under an effective and clear international agreement. This is where COP-21 is supposed to make the difference, representing a turning point, whereby the EU – so far an almost lone runner – is joined by the global community with ambitious, binding commitments to reduce GHG emissions in an equitable manner.

The EU has already submitted its target: a binding 40% cut in GHG emissions in 2030, with respect to 1990 levels. It is an unconditional commitment: whatever the results in Paris, it will not be revised downwards, but possibly upwards.

In this way, the European Union has set an ambitious model for other regions of the world to follow.

In fact, strong, equitable and binding commitments from all regions in the world are indispensable for two main reasons:

- **To effectively address climate change:** the EU is responsible for only 10% of today's global GHG emissions, with a further declining trend. However, no matter what level of ambition its emission reductions achieve, its practical contribution to the resolution of the climate change emergency will be almost irrelevant, unless the other major world economies 'play the same tune'.

- **To restore a level playing field among competing economies:** ambitious decarbonisation targets do not come free of cost: the EU economy – so, ultimately its citizens – will be footing the bill. The EU's industry, and particularly the energy-intensive sectors, such as petroleum refining, che-

micals, steel, cement, aluminium, and many others, are posed to further worsen their international competitiveness, unless effective carbon leakage protection measures are implemented.



The possibility for EU industries to compete without asymmetrical decarbonisation costs is an essential condition for their economic sustainability, and ultimately, their survival

The possibility for EU industries to compete without asymmetrical decarbonisation costs is an essential condition for their economic sustainability, and ultimately, their survival. Should the distortion remain in place, many industrial manufacturing activities would cease their activity in the EU, and relocate to countries with less severe environmental regulations. The damage would be two-fold:

- Global GHG emissions would increase: for example, the manufacturing of petroleum products in the EU's refineries results, on average, in 35% lower emissions than in non-EU refineries. Similar detrimental effects would occur for other energy-intensive industries, since these industries have, in many cases, a lower carbon footprint than their non-EU competitors.

- The EU economy would progressively lose, not only the contribution of industry to its GDP and the welfare of its citizens, but also its technological know-how, not to mention many high quality / well paid jobs. ►

OPINION

COP-21: Will it deliver a breakthrough in the global action against climate change?

CONTINUED

So, the key question is: what does it take for the Conference of Parties in Paris, from the 30th of November to the 11th of December, 2015, to be a success?

- A legally binding agreement,
- amongst all significant world economies,
- with equitable emission reduction targets,
- with strong monitoring / reporting / verification rules,
- and with revenue-neutral market-based mechanisms,

including carbon pricing under the right circumstances.

The tone and the content of the policy debate in this preparatory phase to COP-21 is unfortunately, providing more than one reason for concern.

Let's start with the Intended Nationally Determined Contributions (INDCs), the decarbonisation plans, otherwise known as 'pledges', submitted by the vast majority of world countries ahead of the conference. Whilst the number of countries submitting pledges (150+), and the coverage of global GHG emissions (more than 90%) are impressive figures, the level of commitments presents a very diverse picture.

Many key countries do not provide absolute targets (as the EU have done), but commitments to the reduction of GHG emissions per unit of GDP or per capita (meaning that if GDP or population keeps growing, emissions in absolute terms, are allowed to grow).

The peak of the GHG emissions is set at a later time for many important countries, sometimes as late as 2030. In other cases, the reference year for reduction is taken, at a time in the past, when emissions were extraordinarily high, making the real decarbonisation effort unambitious.

Moreover, some of the INDCs are conditional, meaning that the commitment to implement the plan, depends on the occurrence of some conditions (which may or may not happen). In conclusion, notwithstanding the impressive effect of the sheer number of countries submitting their INDCs, it is clear that there is a long way to go before considering their commitments to be as consistent as the EU's.

Another reason for concern is the fact that the focus of the policy debate seems to be shifting, from the objective to achieve an international binding agreement, to the idea of a review of the decarbonisation plans in 5 years, for the necessary adjustments and the relevant commitments to be made.

In my view, it would be extremely disappointing if COP-21 ended up solely as an expression of goodwill – with a generic pledge to review the contributions in 5 years' time, without a legally binding signature on an agreement for equitable reduction targets.

Let's hope that this will not be the case, and that EU negotiators will have been able – building on the strength of our own ambitious, binding and unconditional commitment – to lead the world to a satisfactory global agreement.

The role of the EU refining industry

Before concluding, I would like to briefly stress the contribution that the EU refining industry can provide, to successfully address the dilemma of answering the growing global demand for 'secure, reliable and affordable' energy, whilst at the same time limiting the emission of greenhouse gases.

EU refineries are 'secure, reliable and resilient' providers of energy, in the form of petroleum products, to the EU

economy.

Mobility is a key contributor to living standards, and is intrinsically linked to economic growth. Today, with alternative technologies being increasingly used in transport, refined petroleum products nevertheless, are, and will remain for many years, the prominent energy source. This is due to a unique and tremendously successful combination of continuous technological advancements in the internal combustion engine, and of affordable, and high quality liquid fuels. The latter, due to their superior energy density with respect to any available alternative, provide economic and technological advantages, which compare well with other competing fuels / energy sources.



” Many key countries do not provide absolute targets (as the EU have done), but commitments to the reduction of GHG emissions per unit of GDP or per capita (meaning that if GDP or population keeps growing, emissions in absolute terms, are allowed to grow)

Refined products supply 2/3 of the raw material of the EU petrochemical industry, and are converted into light-weight plastics, insulation materials, and other essential components of the low carbon economy.

Moreover, as 60% of the operating costs of refining is for energy, EU refineries have developed a strong capability to innovate, achieving world leadership, in terms of efficient use of energy and lower carbon intensity from production activities. The refining industry is continuously seeking to improve its energy efficiency, based on the valuable technological know-how accumulated by the sector, and, in close co-operation with the automotive, petrochemical and other key industries, contribute to an economically sustainable low carbon economy.

Last, but not least, the EU refining industry has engaged in promoting a more “energy-conscious” behaviour for its customers. A notable example of this is the campaign: “Save more than fuel”: www.savemorethanfuel.eu. ■

EVENT

Paweł Olechnowicz at the American Energy Exports Breakfast Seminar: We stand a chance of revolutionising the Central European energy sector



Jan Jujeczka

Spokesperson, CEEP

“With new infrastructure that is integrating the region and opening it up for the global sources of energy supplies, we stand the chance of integrating the whole continent, providing it with strategic security and enhancing industry’s competitiveness,” argued Paweł Olechnowicz, Chairman of the Board of Directors of CEEP, at the American Energy Exports Breakfast Seminar.

The meeting of the US’s top energy sector representatives took place on November the 5th, in Washington DC. As the event’s special guest, Mr. Olechnowicz shared the Central European perspective on the energy dimension of the transatlantic relationship. He underlined that linking Central Europe’s energy market to the wider array of global sources of energy supply, creates a real opportunity for this region’s robust relationship with the US. “Central Europe is a significant market, with a population exceeding 100 million consumers. Natural gas plays an important role in our energy-mix, and it can be increased through co-operation with the US. In the hope of increasing the role of LNG in the supply of natural gas, the countries of our region are expanding the possibilities of imports by LNG terminals. The terminal in Lithuania is already operative, and the facility in Poland has just been completed, and will soon be put into service. These terminals will allow Central Europe to strengthen the widespread pipeline connections penetrating the region’s growing

gas markets,” emphasised Paweł Olechnowicz in Washington DC.

At the moment, countries in Central Europe are dependent on Russian oil and gas supplies from 20% to almost 100%. This dependence affects not only the issue of energy security in the region, but also prices in the gas market. “To break Central Europe’s dependence upon Russian oil and gas, the existing East-West transmission infrastructure has to be complemented by a network of North-South oil and gas transmission lines. That, in fact, is what is happening today. New opportunities in infrastructure have to be viewed in conjunction with the expected opening up of exports by the US. Together, these developments could create a new quality in the structure of energy supplies to Central Europe,” Paweł Olechnowicz added.

Regarding the possibility of crude oil imports, the necessary infrastructure in Central Europe already exists. Central Europe’s oil terminals are able to receive and provide crude oil from the global markets for further processing in refineries. “Still, we eagerly await the lifting of the US ban on exports of crude oil. This will have both a direct and an indirect impact on Central European countries. The direct impact means the possibility of the appearance of the US oil supply, which will increase the security of supply in Central Europe. Access to cheaper crude oil will also be important for the competitiveness of our refining sector. The indirect impact means an influence on global oil prices. Our countries are importers of crude oil, and lower prices have a positive effect on our trade balances, whilst increasing the purchasing power of our citizens,” he concluded. ■

EVENT

Europe—US LNG Roundtable II. Preparing the ground for the transatlantic gas partnership



Jan Jujeczka

Spokesperson, CEEP

As the US is now at the cusp of becoming a major natural gas exporter, Europe has the opportunity to introduce additional supplies to its market and push down the prices of this strategic resource. Both sides could largely benefit from opening their energy markets and facilitating the transatlantic LNG trade. On November the 4th, decision-makers and industry representatives from both sides of the Atlantic met in Washington, DC to prepare the ground for the US—European gas partnership.

Liquefied natural gas (LNG) has been part of Europe's energy supply for just as long as piped gas. The very first LNG ship came from the US to the British Canvey Island in February 1959. "Despite an early start, until now Europe did not have a comprehensive LNG strategy which encompasses the entire EU. However, in recent years, our concerns for the security of supply have been aggravated, mainly due to the geopolitical situation to the east of the EU. At the same time, we have witnessed a transition of the gas markets, which have become global rather than regional. Given these two coinciding trends, the European Commission has decided to propose an LNG Strategy, which will be put on the table at the beginning of 2016. We strive to allow even LNG-access, not only to coastal Member States, but also for those which are landlocked through other EU members," underlined Maroš Šefčovič, Vice-President of the European Commission, in charge of the Energy Union.

The European Union is highly dependent on oil and gas imports. As much as 85% of oil and 65% of gas consumed

across the EU comes from countries outside the EU. "While Europe is working on a more diversified energy supply, the United States can already now produce more energy than it needs domestically. Opening up the gas trade can be beneficial for both sides. In Europe, and especially in its Central and Eastern part, the possibility of having more gas imports from new sources can strengthen not only our energy security but also our bargaining position in global energy markets. Access to more affordable and stable energy would benefit our consumers – businesses and individuals. At the same time I am sure that our market can be a most interesting destination for American exports. This can be a true win-win situation," stressed Professor Jerzy Buzek, Chairman of the Industry, Research and Energy Committee at the European Parliament.

Experts are agreed that Europe needs to prioritise infrastructure projects that will allow it to enhance its LNG receiving facilities, interconnections and reverse flows. "This requires a holistic approach, coordinated at regional and pan-European levels. An important component of this plan should be the North–South Corridor, whose task is to integrate key infrastructure projects, including the existing and planned LNG terminals, from the Baltic to the Adriatic, and ultimately to the Black Sea. Thanks to the terminals in Poland's Świnoujście and Lithuania's Klaipėda, the Corridor and connections with Norwegian gas systems would become part of a pan-European, interconnected pipeline network. As we are preparing the ground for the US–European gas partnership, we need to let energy resources flow freely wherever needed in Europe," explained Paweł Olechnowicz, Chairman of the Board of Directors of Central Europe Energy Partners (CEEP).

EVENT

Preparing the ground for the transatlantic gas partnership

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Expediting natural gas exports from the United States is a challenge, given a lengthy and expensive regulatory system. However, such exports will benefit the American economy in several ways. “Thousands of new high-wage jobs will be created, and new revenues will accrue at the national, state, and local levels. We need to remember that energy security is also an element of national security, and the starting point for energy security today is diversification of supplies and sources. Americans learned this lesson the hard way in the 1970s, and today much of the rest of the world knows this to be true. The United States should, therefore, do everything possible to help its European allies diversify their fuel sources and improve their energy security. It is time to lift America’s

self-imposed energy export restrictions, and the roundtable in Washington, DC helped to accelerate this process.” said Fred H. Hutchison, Executive Director of LNG Allies.

A series of roundtables, initiated by LNG Allies and CEEP, in co-operation with AT Kearney and Grupa LOTOS, serve as high-level debate platforms for the key members of the US Congress, US government officials, EU Commission representatives, and members of the European Parliament. They also bring together US exporters and upstream natural gas producers with their potential customers from Europe. The first roundtable took place on May the 27th–28th in Brussels, and produced a joint Memorandum signed by industry representatives from both sides of the Atlantic. The roundtable which took place on November the 4th in Washington, DC has added another milestone on the way to providing timely legislative actions in the US and coordinated investments in gas infrastructure in the EU. It has also confirmed EU prospective buyers’ desire and readiness to engage US LNG suppliers and start trade cooperation without delay. ■



Maroš Šefčovič

Vice-President of the European Commission

The European Commission has decided to propose an LNG Strategy, which will be put on the table at the beginning of 2016. We strive to allow even LNG-access, not only to coastal Member States, but also for those which are landlocked through other EU members



Prof. Jerzy Buzek

Chairman of the ITRE Committee

In Europe, the possibility of having more gas imports from new sources can strengthen not only our energy security, but also our bargaining position in global energy markets. Access to more affordable and stable energy would benefit our consumers – businesses and individuals



Paweł Olechnowicz

Chairman of the Board of Directors of CEEP

Infrastructure requires a holistic approach, coordinated at regional and pan-European levels. An important component of this plan should be the North–South Corridor, whose task is to integrate key infrastructure projects, including the existing and planned LNG terminals



Fred H. Hutchison

Executive Director of LNG Allies

We need to remember that energy security is also an element of national security, and the starting point for energy security today is diversification of supplies and sources. Americans learned this lesson the hard way in the 1970s, and today much of the rest of the world knows this to be true

INTERVIEW

We agree with the key position of the North–South Corridor

Mirek Topolánek

Member of the Board of Directors of Eustream

As a representative of a key player in European gas transmission, how would you define the continent's major challenges in this field?

Key challenges in the current European midstream market lie in dealing with continuous changes in the patterns of natural gas flow, in reaction to the commissioning of large-scale projects like Nord Stream. A very important step in this process was, inter-alia, implementation of the physical reverse flow possibilities in the countries in Central Europe, which currently, enables natural gas to be delivered to Southern Europe, via the Nord Stream and OPAL pipelines, utilising physical reverse flow, via the Czech and Slovak systems, or reverse flow deliveries to Ukraine. Possibilities of this kind are still not available in the Balkan region, which faces high import dependency on a single natural gas source and transmission route. High dependency on such a level is certainly the biggest problem of the natural gas segment of the SEE countries.

Security of gas and energy supplies is high on the European agenda. What steps – in terms of legislation – should be undertaken to achieve considerable progress in this matter?

After the natural gas crisis in 2009, security of energy supplies became the key priority of the EU's energy policy. Focus is applied, mainly to the development of new infrastructure, which is able to enhance energy security, in the most impacted regions. In this respect, EU legislation, oriented on identification and support of Projects of Common Interest is very helpful, however, we are of the opinion, that legislation should be stricter, to prohibit development of infrastructure, which is aimed at the bypassing of existing pipelines.

A stable energy market in Europe is not possible without the further development of infrastructure. According to CEEP, the North-South Corridor is key to this plan. What is your opinion on that?

As already mentioned, we fully agree with support for further development of the infrastructure, and we are of the opinion, that the PCI selection process should be very helpful in this manner. We also agree with the key position of the North-South Corridor, due to its orientation on improving the security of natural gas supplies to the countries in the SEE region, with the biggest impact since the gas crisis in 2009. Also today, countries in this region, and mainly the Balkans, face high, or almost full dependence on a single gas source, delivered via a single transmission route.

Out of the all projects within the North–South Corridor initiative, Easting is the most efficient project, able to deal with all the abovementioned problems of the SEE countries. Project Easting is an intended interconnection of the Slovak transmission system, from the IP Velke Kapusany, to the Trans-Balkan Pipeline at the Turkish-Bulgarian Border, crossing the territories of Slovakia, Hungary, Romania and Bulgaria. Direct connection of this region, to the robust transmission system of Eustream, will enable the Balkans and

Mirek Topolánek is a Member of the Board of Directors of Eustream, the Slovak gas TSO. He was Prime Minister of the Czech Republic from 2006 to 2009.



Turkey to diversify their natural gas supplies by direct link to the more developed gas markets, and liquid hubs in Western, Southern and Central Europe.

At the same time, due to its bi-directionality, the project will enable alternative gas sources, accessible from Turkey, such as the Caspian region, Iran, Azerbaijan, Turkmenistan, and, last but not least, also from Russia, to access European markets. Given the fact that Turkey is expected to play a very important role in natural gas transit in the future (access to gas from Caspian region, Iran, as well as Russia, via the planned Turkish Stream project), an interconnection like Easting, may be very useful, in order to achieve the goals in the more diversified portfolios of natural gas deliveries in the EU's Member States.

What is your reaction to the Nord Stream 2 project, which is now part of the European public debate? Do you think this project can endanger the Energy Union's plans and the EU's integrity?

Eustream is closely monitoring the situation surrounding the extension of the Nord Stream project (known as Nord Stream II). Even though the final form of the project is not clear yet, in light of the inadequate adjoining infrastructure at German borders and announced volumes, you can, with certainty, expect that realisation of this project will enable the complete bypassing of the Ukrainian gas route, with all the potentially grave consequences for the EU's energy security. ►

INTERVIEW

We agree with the key position of the North–South Corridor

CONTINUED

The full bypass of the Ukrainian route will lead to a gradual and inevitable decline of the Ukrainian transit system, which, at the capacity of approximately 140 billion cubic metres annually, exceeds by almost three-times, the volume of the new Nord Stream capacity. Therefore, in the form as announced, the extension of Nord Stream doesn't increase, but rather decreases Europe's energy security, and the volume of transport routes at its disposal.

The construction of Nord Stream II and the subsequent re-routing of gas flows, would create a situation, in which, almost the entire volume of Russian gas would be supplied to Europe, via a single point in Germany, together with the Yamal pipeline. From there, it would have to be transported to its final point of consumption, namely, the countries of Central, Southern, South-Eastern Europe and Ukraine (via reverse flow). However, the gas infrastructure in Europe is not prepared for such transport in terms of capacity. This poses the risk of some countries not having enough gas. Simply put, Italy and Ukraine would compete together for the gas flows from Western Europe.



The full bypass of the Ukrainian route will lead to a gradual and inevitable decline of the Ukrainian transit system, which exceeds by almost three-times the volume of the new Nord Stream capacity. This would not increase, but decrease Europe's energy security, and the volume of transport routes at its disposal

Last, but not least, a number of countries in South-Eastern Europe, such as Romania, Bulgaria and Greece, are not connected to western gas networks. Once the Ukrainian route, also known as the "Bratstvo" or Brotherhood pipeline is disabled, it will be impossible to deliver gas to them via Nord Stream. Therefore, if Nord Stream II is materialised, it is necessary for the EU's energy security, to guarantee sufficient volumes transited via the Ukrainian route to Europe in the future. Thanks to that, the Ukrainian TSO will not be forced to decommission its robust transit system, current transit countries will preserve their status, able to provide gas supply to the concerned region, and thus, EU's energy security will not be allowed to deteriorate.

Moreover, I also emphasise the fact that Nord Stream II plans to transport gas to a region, in which current transport routes are used by up to 50 percent only of their potential. Thus, Eustream considers the concerns voiced by the European Commission, as well as by the Slovak Prime Minister, to be fully substantiated. We cannot envision support for the full bypass of the Ukrainian route. ■

NEWS FROM THE REGION

Poland: Krzysztof Tchórzewski is the new Energy Minister

Krzysztof Tchórzewski was appointed Minister of Energy, on the 16th of November 2015, in what is a newly-formed Minister. 65-years old, he was first elected to the Polish Sejm, ten years ago. A member of the Law and Justice Party, which has just taken office after a comfortable election victory. The creation of his post reflects a strong governmental interest in energy matters.

Romania: Victor Grigorescu is the new Energy Minister

Victor Grigorescu was appointed Minister of Energy, SMEs and the Business Community in the newly interim government formed in Romania, after the resignation of Ponta's cabinet in early November. Among his first statements, Grigorescu said that "the current energy-mix grants Romania energy independence." Previously, he was a member of the Electrica SA Board, elected on the 22nd of September, 2014. (Agerpres)

Croatia: HEP to start construction of CHP unit at TPP Osijek

Croatian state-owned energy utility, HEP, a CEEP member, has secured a building permit for a cogeneration combined woodchip and gas power plant (CHP) in Osijek, and plans to launch construction works in December, according to the country's Economy Ministry.

Trialling should start in early 2017, with the EUR 16.25 million power plant seen fully operational by spring the same year. The CHP unit will have an annual electricity production of 16,500 MWh, industrial steam production of 32,400 t, and thermal energy production of 53,200 MWh. (See News)

Hungary's Russian-built energy plants criticised

Hungary's plans to build a EUR12.5bn nuclear power project, have been criticised by Brussels, saying that Budapest acted illegally, by awarding the bulk of the contracts to a Russian state-owned company, without a transparent tender.

The Hungarian government has directly awarded the construction of two new reactors and the refurbishment of two additional reactors of the Paks II nuclear power plant, without a transparent procedure," the European Commission said on Thursday, launching an infringement procedure against Budapest. Prime Minister Orbán's office responded that the government had respected "all relevant and existing national, EU, and international laws". (Financial Times)

Poland asks for a revision of the EU's CO2 commitments

The President of Poland urged the European Union to revise its commitment to cut CO2 emissions, saying its implementation would be costly. Andrzej Duda had already vetoed an amendment to the Kyoto protocol on emissions in October, as a sign of Poland taking a tougher stance in defending its coal sector, which is central to its energy policy. "If the EU takes on such far-reaching commitments when it comes to limiting emissions, then it is clear that it will bear great costs. (...) Unfortunately one of the greatest costs will be taken on by Poland. In my opinion, these commitments need revision," highlighted the Polish President. (Reuters).

Bulgaria: final investment decision on Gas Link with Greece

Shareholders in the project for the construction of a gas transit interconnection between Greece and Bulgaria have agreed on the clauses of the development contract, Bulgaria's Energy Minister, Temenuzka Petkova, has declared. The final investment agreement will be inked on 10th of December. Bulgaria's government has decided to issue guarantees worth EUR 109 M for the IGB pipeline in 2016. The pipeline is to be built by a joint venture company, comprising the state-owned Bulgarian Energy Holding (BEH) and Greece's IGI Poseidon. From 3-5 billion cubic metres (bcm) of gas could be transited, via Bulgaria, through the interconnections with Greece, Turkey and Macedonia, whilst the capacity of the gas depot in Chiren is expanded. (Novinite/Focus)

POSITION PAPER

CEEP Position Paper on the revision of the LCP BREF

Central Europe Energy Partners, AISBL, as a representative of the energy sector and energy-intensive companies from Central Europe, is always supportive of new measures, which can help to improve the EU's energy security, whilst preserving the environment in a cost-effective manner.

The Directive on Industrial Emissions (IED) is the main EU instrument regulating pollutant emissions from industrial installations. The review of its related Best Available Techniques reference document for Large Combustion Plants (LCP BREF) currently under-way, should allow for further limitation of emissions from industrial installations in the future. However, as the consequences of this technical document go beyond the energy sector, and tackles the energy intensive sector as well, it is important that the BAT should be fully justified, to ensure the best possible use of resources, in an attempt to improve the EU's environment further.

The IED Directive aims to achieve a high level of protection of human health and the environment, taken as a whole, by reducing harmful industrial emissions across the EU, in particular through better application of Best Available Techniques (BAT). Around 50,000 installations conducting the industrial activities, listed in Annex I of the IED Directive, are required to operate in accordance with a permit (granted by the authorities in the Member States). This permit should contain conditions set in accordance with the principles and provisions of the IED Directive.

Bearing in mind the above, CEEP believes that the current IED Directive and reference documents, could establish an effective framework for Member States, competent authorities and industry, to ensure that environmental goals will be met in the most effective way. Therefore, the stakeholders, Member States and operators, should be given a chance to find cost-effective solutions, which respect environmental needs, along with practical, social and economic factors.

On this basis, CEEP has some concerns regarding the

Commission's proposal for a revision of the IED:

1. The new standards set by the LCP BREF (Large Combustion Plants BAT REFERENCE document) will be extremely challenging and costly for industry. For example, as concerns power plants, LCP BREF could lead to the closures of many of these. For the energy sector (electricity) the possible closures of some power plants is only one of the main problems, but, what is even more dangerous, is that the security of the continuous operation of the synchronous connected European power system will be endangered (i.e. in transition time and after), and such a risk has to be taken into account as a factor (not only "economic and market factors").

2. The proposed measures will result in a decrease of the competitiveness of the EU's industry. There are no such obligations in countries outside the EU, therefore, EU industry should have a sufficient protection period to adapt to the newly-proposed measures.

3. According to the European Commission's Communication on "Better regulation for better results – An EU agenda",* all important implementing acts are subject to Impact Assessment outlining the full environmental, economic and social consequences of the new legislative measures. We wish to highlight that Chapter 10 of the LCP BREF will provide a basis for the Commission's implementing decision on BAT Conclusions, and because of its significance to the EU energy sector and energy intensive sector, it should be subject to in-depth Impact Assessments, with the aspects of energy security and competitiveness, included.

European Industry is among the world leaders, in terms of control of environmental emissions. Maintaining European competitiveness in the face of these ambitions, requires that all environmental measures are carefully weighed up, and that the most cost-effective solutions are pursued. CEEP believes that this goal could be achieved by a positive dialogue based on economic and market factors. ■

COMMENTARY



Jarosław Zagórowski

Vice-Chairman of the
Board of Directors of
Central Europe Energy Partners



The BAT framework adopted five years ago was already ambitious. If new standards are adopted, no other country in the world will be faced with similar burdens, which will inevitably result in the relocation of our domestic capacities and jobs outside the EU. This will also be detrimental to the global environment, as industry in the European Union is, on average, considerably more effective in controlling emissions than the rest of the world

The State of the Energy Union



Cristina Dascălu

Communication Co-ordinator, CEEP

The first “State of the Energy Union” provides an overview of the progress made by the EU and its Member States, on the road towards achieving Energy Union. This „brand new instrument” was presented by Maroš Šefčovič, Vice-President of the European Commission, in charge of Energy Union, on the 18th of November, in Brussels.

The main report is accompanied by an entire suite of studies, going from energy security to climate action. The package sets out achievements to date, counting from nine months ago, when the Framework Strategy was launched, and outlines pending legislative proposals in 2016, which will realise an Energy Union for Europe. As Šefčovič put it, 2015 was a good start, but 2016 will be “a year of delivery”.

Achievements

The report mentions the biggest already known achievements of the Energy Union: signing off on the first energy projects for funding from the Juncker Plan, completion of an underground power line between France and Spain, that doubles their interconnection capacity to 2.8GW, proposals to revise the A to G energy label for white goods, and the launch of a new Strategic Energy Technology (SET) Plan to co-ordinate European energy R&D.

Mentioned amongst the examples of good co-operation in achieving a fully-integrated Internal Energy Market, were the LitPolLink interconnection initiative between Lithuania and Poland, which will be inaugurated in December, 2015, and the Liquefied Natural Gas (LNG) terminal in Klaipėda (Lithuania).

COP-21

Šefčovič linked the first political message to COP-21, stating that the EU should continue to lead the way in the transition to a low-carbon economy, and be proud of the

results already obtained. The latest figures from the European Environment Agency show that the EU exceeded its 20% by 2020 greenhouse gas emission reduction target, six years early, – in 2014, when emissions were 23% below 1990 levels, whilst the economy grew by 46% over the same period. He pursued with the second message by declaring that this transition should be socially fair and consumer-centred, and that considerable attention would be devoted to tackling the energy poverty issue. Serious debates are to be expected in 2016 on energy costs and transparency.

Infrastructure

According to the Energy Union chief, the geopolitical challenges which will not go away, meaning that in terms of energy security, more diversification, better connections, therefore infrastructure, and better functioning of the internal energy market, certainly matter. The same day, the second list of Projects of Common Interest (PCIs) was published, somewhat shortened, with the aim of a better focus being placed on urgent projects.

Further steps

2016 will be the year, in which the foundations of a governance system, anchored into legislation, will be laid down, bringing predictability and transparency to the energy sector. Šefčovič said that investors had frequently asked for assurances about the EU’s vision, and that policies would not be changed every two-three years. Furthermore, the governance system cannot be limited to planning and reporting alone, as they will not make governments accountable for inaction.

The EU’s Energy Ministers met on the 26th of November, to adopt conclusions on governance. Then, in the first half of 2016, the Commission will unveil a new “reference scenario” for the European energy system, that will form the basis for assessing Member States’ contributions to the Energy Union, and underpin any proposals to make up the shortfall. An LNG strategy is also expected next year. ■

ANALYSIS

Principles of a flexible and stable petroleum fiscal framework



Radu Dudău

Director of Energy Policy Group
and Associate Professor at Bucharest University

“There are few areas of economic policy-making in which the returns for good decisions are so high – and the punishment of bad decisions so cruel – as the management of natural resource wealth,” noted Philip Daniel, a reputed IMF expert. One of the most important tools in the management of natural resources is the fiscal regime of petroleum exploration and production.

Petroleum fiscal policy is a key instrument, through which, producing countries aim at getting as large a share of the economic rent, generated by oil and gas extraction, as possible. Governments also promote socio-economic objectives: jobs, technology transfer, infrastructure projects, macro-economic stability, by means of steady budgetary incomes, etc. Under concession regimes, title holders seek to obtain profits, that are proportional with the degree of risk they take, when investing in exploration and production. In order to achieve such objectives in the longterm, it is paramount to have a transparent, predictable, and internationally competitive regulation environment.

However, fiscal stability seems to be harder and harder to achieve, as in the past 15 years, international oil markets have become unprecedentedly volatile. Between 2002 and 2008,

the Brent barrel price rose fivefold to the historical level of \$147, only to fall to \$46 within the following three months; then, it soared again to reach \$127 at the beginning of 2011, where it stayed relatively stable, until the summer of 2014; the price then collapsing 60% from \$114, till the year’s end, and is hovering under the \$50 dollar level at present.

The volatility of international oil quotations has challenged the stability of petroleum fiscal frameworks. Thus, starting in the mid-2000s, several producing countries showed their frustration at the fact that fiscal terms failed to generate the expected economic rent. Such governments wanted to re-negotiate the fiscal terms in their favour. By the same token, cheap oil pushes companies to ask for milder fiscal treatment, in order to be able to pursue their investment plans. Given that the economic cycle of petroleum projects is about 30 years on average, it is quite a challenge for a petroleum fiscal framework to remain stable for so long, under high oil market volatility.

At the beginning of 2015, the Romanian government started a process of revising the fiscal regime for oil and gas upstream activities. This happened under public pressure, stemming from the misconception that the old royalties’ framework expired at the end of 2014. The confusion, also fuelled by a mix of opportunism and ignorance in politics and the mass media, was between the expiry of the 10-year stabilisation clause in the Petrom S.A. 2004 privatisation contract, and the presumed duration of the “old” royalties’ framework. ►

ANALYSIS

Principles of a flexible and stable petroleum fiscal framework

CONTINUED

Nevertheless, a stabilisation clause is a mere contractual provision practised worldwide, which guarantees the parties – investors and state alike – that the fiscal regulations in place at the time of contract conclusion, stay unchanged (or do not impose higher rates of tax) during the clause's period of validity. Typically, such stabilisation clauses include recourse to arbitration, to determine adequate compensation and adaptation measures. Now, the stabilisation clause in the Petrom S.A. privatisation agreement expired on the 31st of December, 2014. However, the clause itself, has not hindered the government from initiating changes to the petroleum fiscal regulations, if it so wanted, at any time before that deadline, or after it, as long as these would not have applied retroactively. In other words, any such fiscal changes could only concern new petroleum agreements.

The Romanian government's new approach to the oil and gas fiscal regime has all the features of a rigid framework, with meagre chances of remaining stable in the long-term. Other than minor changes in the royalties rates (which, at the moment, vary between 3.5 and 13.5% for oil, and 3.5 and 13% for natural gas, depending on the volume of quarterly production) and some useful distinctions between operations' types (onshore, offshore, deep-water offshore, etc.), a problematic 'supplementary profit tax' has been introduced.

The exact rate of this new profit tax has yet to be disclosed, but it is sure to raise the fiscal burden on oil companies investing in Romania, way above the level of European countries, comparable in terms of geology and political risk. Moreover, it is still unclear if the supplementary profit tax is to apply to existing concessions, as well. If so, it would blatantly violate the principle that regulations are not to be applied retroactively. Besides, it would amount to double profit taxation, imposed selectively, and for an undetermined time to a single industry. On the other hand, if the tax will not actually apply to existing concessions, but only to new ones, then the new tax rate will be hard to accept by investors, who are interested in new oil and gas E&P licences.

Certainly, it is the state's sovereign right to tax the exploitation of its natural resources, as it sees fit. However, assuming that the Romanian state's strategic objective is to have a robust oil and gas industry, and support the development of new hydrocarbon sources, its long-term interest can only be to incentivise oil companies to invest in exploration and development. A competent government, aware of the consequences of its' decisions, ought to realise that to drastically toughen the fiscal terms (following a logic that, perhaps, could have been accepted a decade ago, when oil prices were at a record high and growing, but not nowadays, when the price has plunged by 60%), might bring some short-term gains, yet is sure to cause considerably higher losses in the long-term: mothballed investments, lower revenues for the state, lost jobs, diminished or cancelled multiplier effects, etc. Incentivising investments also extends the lifespan of oil projects, and makes operations more counter-cyclic, because constant investment flows will put in place spare capacity, which is the best means to mitigate the effects of price volatility.

So, what should a flexible and stable fiscal framework for upstream O&G look like? While there is no ideal prototype

suitable, regardless of particular geological, economic and political conditions, such a framework needs to meet some basic requirements:

- It must be progressive, that is correlate to the economic rent the government receives, with the level of capital investments made by the companies. Taxes, such as the special construction tax, a.k.a. the "pillar tax," are deeply regressive and unpredictable. Thus, they dramatically reduce the motivation of operators to invest.
- It must incorporate the oil price as a variable, sliding in a large value span from very low (\$10-15 a barrel) to very high (\$150 or more), so that the economic rent is always tied to the oil price. Hence, at high oil prices, the state should receive a larger share of profits, whilst at low prices, fiscal demands should not only be downsized, but also accompanied by investment incentives, such as 'negative royalties' or fiscal credits.
- It must stay neutral as new distinctions are introduced, finding a place for new technologies, and types of activities in newly discovered reserves, whose viable development requires special fiscal conditions.



” The Romanian government's new approach to the oil and gas fiscal regime has all the features of a rigid framework, with meagre chances of remaining stable in the long-term

Moreover, the fiscal framework ought to include as few taxes as possible, that are independent of the projects' profitability, as well as an adequate system of deductions, through which the operator manages the investment risk. Exploration spending should be deductible, as it makes up one of the most significant risks confronting oil and gas projects. Finally, a petroleum fiscal framework cannot be drafted, without tying its complexity to the administrative and institutional capacity to regulate, monitor, and audit. Consequently, such a fiscal framework has to be as straightforward as possible, so that it can be efficiently managed by existing institutional bodies.

In Romania, the calendar for introducing the framework is still vague. It is unknown if, and when, the draft that has been publicly discussed conceptually, will enter parliamentary debates. In any event, it is unlikely that it can offer a lasting solution, given its inadequacy to the present trends of the global oil industry. All things considered, it may be worthwhile considering the drafting of a new petroleum fiscal framework, altogether – a modern, flexible, stable one, able to offer more than a mere short-term remedy. ■

REPORT

Challenges and Opportunities of the Digital Transformation for the European Energy Industry

Alexandru Zegrea

Consultant, Pflüger International

The European Commissioner for Digital Economy and Society, Günther Oettinger, gave an insightful talk on the Old Continent's competitiveness issue, in the context of the inexorable digital transformation of the economy, at the Chatham House second annual conference on 'Europe's Strategic Choices' in Berlin, beginning of November.

For the European energy industry, emerging business models that are driven by the digital transformation might – similarly to the advance of renewables – pose existential challenges, but they can also definitely provide opportunities for growth. Nevertheless, while Europe is at the forefront of renewable expansion, in terms of the digital economy, it is falling behind.

According to Commissioner Oettinger, the five largest American digital giants (Amazon, Facebook, Microsoft, Google and Apple) – one of which came into existence less than 15 years ago – have twice the market capitalisation of the 30 companies of the German DAX Index some of them with a history going back 160 years. It is these, and many other young competitors from Silicon Valley and elsewhere, who have the potential to, not only successfully challenge the European digital and technology sectors, but also established energy companies. Their strategy: big data. The idea that stands behind this concept is that, after collecting vast amounts of related or ostensibly unrelated information, computers can be used to detect patterns that are not apparent to the human mind. It is these patterns that, in a highly entrepreneurial environment, become successful new business models.

As Commissioner Oettinger mentioned, it was not for the desire to become a company that processes heating bills, that Google purchased Nest Labs – a manufacturer of smart household thermostats and security equipment – for \$3.2 billion. It is the data recorded by these smart units, which automatically adjust to your daily routines, that the tech giant is most certainly after: temperature, humidity, consumption of gas and electricity, work and travel patterns, etc.

Through a \$750 million joint venture with Solar City, the American company that installs one out of every three solar panels in the United States, Google successfully contributed to establishing a leasing model for photovoltaic electricity generation. Google made this significant contribution to the democratisation of electricity without being a traditional energy company. Instead, it did so, by using the plethora of information at its fingertips (i.e. satellite imagery, weather patterns, light irradiation, financial indicators) and – in addition to achieving great returns – with the prospect of collecting even more data through the installed systems.

Tech firms will not challenge established European energy companies by building power plants and generating electricity, or providing district heating, because it is not in

these fields that their expertise lies, or the highest profits are to be made. Companies like Google aim at becoming the connective tissue that brings people and smart technologies together, whilst in the background, collecting huge amounts of information and developing new business ideas in the process.

The fragmented European data protection legislation, which Commissioner Oettinger decried, favours outsiders. Foreign companies successfully identify the point of least resistance within the European digital framework, and use it as a path to export data gathered from European consumers, in order to analyse it, and return with resulting bespoke products and services. In this supply chain, almost no value is added within Europe, and data security is not guaranteed.

” The energy and digital fields are closely linked. The closer they grow together, the higher their symbiotic benefits. The digital transformation offers an abundance of opportunities for energy companies. It is not too late for the European energy industry to jump onto the bandwagon and embrace the digital revolution

Still, the energy and digital fields are closely linked – the closer they grow together, the higher their symbiotic benefits. The digital transformation offers an abundance of opportunities for energy companies willing to take up the challenge. It is conceivable, for example, that in the not too distant future, profits will not mainly stem from compensation for energy generation. Rather, the data provided by smart networks and meters will fuel predictive models, generating accurate forecasts and attractive trading margins.

It is not too late for the European energy industry to jump onto the bandwagon and embrace the digital revolution – but it might be in five years time, as the Commissioner underlines. For a successful transformation, we need an effective and consistent regulation of the digital realm in Europe, in order to create a level playing field and increase opportunities for domestic companies, as well as better co-operation between European energy and telecommunication sectors, particularly with respect to network expansion. Only then, there will be a chance for a 'European Google' to emerge. ■

REPORT

The 66th Energy Dialogue at the Reichstag

The 67th Energy Dialogue at the Reichstag



Alexandru Zegrea

Consultant, Pflüger International

The 66th Energy Dialogue at the Reichstag discussed 'Energy Efficiency in the German Building Sector', and the feasibility of the government's efforts to transform it into one of the central pillars of the 'Energiewende'. The roundtable was held at the invitation of Prof. Dr. Friedbert Pflüger, Janusz Reiter and CEEP on October the 16th, 2015.

Mr. Manfred Greis, Chief Representative of Viessmann Werke and President of the Association of the German Heating Industry, opened the discussion by stressing the importance of the heating sector in reducing overall CO₂ emissions. Given the ambitious German goals for climate protection, public incentives for private households to invest in more energy efficient heating are insufficient for achieving the necessary reduction. In Mr. Greis' opinion, the potential of efficient heating to contribute to a more sustainable energy sector, is still under-estimated by politicians, despite house owners' being generally open to invest in the modernisation of their properties, once appropriate policies are in place.

Mr. Ulrich Benterbusch, Deputy Head of the Department for Energy Policy in the Federal Ministry for Economic Affairs and Energy, responsible for "heat and efficiency", rejected the observation that policy progress on the topic of heating has been limited, but agreed that the sector has been of secondary importance, compared to the promotion of renewable energies over the last 15 years. Whilst the plethora of involved institutions and other stakeholders, now need time to create a clear and comprehensive framework for businesses and private owners, Mr. Benterbusch expects that this imbalance of energy policy will be overcome during the current legislative period.

Mr. Andreas Kuhlmann, CEO of the German Energy Agency (dena), concurred that energy efficiency and the innovative technologies related to it, have to play a central role in the 'Energiewende'. He pointed out that, for the entire potential of the heating sector to be unlocked, government policies need to be harmonised better. Whilst the successful implementation of energy efficient technologies in new constructed buildings is well on its way, for older buildings – which are essential to the goal of reaching policy targets – incentives for private investments in modernisation seem insufficient. ■

The 67th Energy Dialogue at the Reichstag discussed the topic of 'Network expansion – Are we on the right track?' and was held at the invitation of Prof. Dr. Friedbert Pflüger, Mr. Janusz Reiter and CEEP, on November the 6th, 2015.

Mr. A.A. (Lex) Hartmann, Chief Executive Officer, TenneT TSO, presented an optimistic view on network expansion – despite the fact that, in 2015, it failed to reach its target by half, mostly because of resistance against the necessary infrastructure, from the population. The costs of the re-dispatching of orders, resulting from insufficient interconnectedness, are set to quadruple by the end of the decade, from the current €250 million. In a positive reading of developments, this means that the economic incentive for network expansion should also significantly increase, and give the project a boost.

In the opinion of **Mr. Alf-Henryk Wulf**, Chief Executive Officer, Alstom Germany, the number and the cost of individual measures, that Germany will have to take, in order to maintain network stability, will significantly increase over the next few years, if no investment in electricity transmission infrastructure is made. Subterranean cables – as opposed to over-ground transmission lines – represent a great technical and political solution to network expansion, which is necessary, in order to complete the 'Energiewende'. However, the available cable supply will be insufficient for the prospective demand, so, Germany needs investments in this industrial sector.

Mr. Jochen Homann, President, Federal Network Agency, pointed out that the current network structure leads to the counter-productive situation, in which renewable generation in Northern Germany has to be suspended at times, as it cannot be transported to the South, the source of most of the industrial demand. Subterranean cables are an ideal technical solution for network expansion. They might, however, bring a host of problems of their own, such as land use, compensation and expropriation. A lack of experience with the technology of subterranean cables, and the topography they will encounter in their path, increases the uncertainty behind the project as well, particularly with respect to expected costs. ■

ENERGY ECHO

150 Pledges but 3C Global Warming (COP-21 Scenario)

As the COP-21 Climate Summit in Paris approaches ever closer, 150 countries representing approximately 90% of the world's carbon emissions, have now filed pledges to curb them. Nevertheless, the likelihood of a satisfactory deal being reached in December is still moderate.

The EU privately feels that the pledges have been conservative, and that the process was not helped by countries knowing in advance other countries' offers. Conversely, the momentum of the process did encourage countries to be positive and make pledges, leading to the optimistic situation now.

The pledges made would still keep the world on the road to a dangerous global warming rise of 3C, so much work still needs to be done, but the outlook ahead of Paris suggests that the world is finally moving on actions to reduce GHG emissions. Are they sufficient? We will see soon. (PW)

Arsenal player has developed a breakthrough chemical process!

Mathieu Flamini, is a French footballer, who plays in mid-field for the famous London club, Arsenal. However, he is about to become better known as a revolutionary figure in the world of energy! He is a partner in an Italian company, GFBiochemicals, which claims to have found a new way to manufacture levulinic acid (LA). What is LA? It is an organic compound that could be used as a precursor to biofuels.

For many years, Flamini has been funding research into LA, eventually starting a company with a partner, Pasquale Granata. After finding the right technology to produce LA on an industrial scale, they patented it, and the GFBiochemicals plant in Caserta, now employs 80 people.

It remains to be seen whether LA can become an effective building block in biofuels manufacture, but the compound has many applications in the pharmaceutical, plastics, and solvent industries, and Flamini is likely to earn far more than he does from football! (PW)

Morocco set to be a renewable energy powerhouse

A giant solar thermal plant at Ouarzazate, the size of 35 soccer fields, is due to open next month.

It is part of Morocco's pledge to obtain 42% of its electricity from renewables by 2020, and part of Morocco's King Mohammed VI's vision to turn his country into a renewable energy powerhouse. He views the capacity of Atlantic wind, mountain hydro power and scorching Saharan sun, as major assets in the fight to turn Morocco away from a 98% dependency on imported fossil fuels. Eventually, Morocco plans to export an expected electricity surplus to Europe.

For the COP-21 Climate Conference in Paris, Morocco pledged to decrease CO2 emissions by 32% below a business-as-usual scenario by 2030, conditional on aid to help them reach their renewables targets. (PW)

Obama's Clean Power Plan would survive a Republican President

If a Republican President is elected in 2016, the Clean Power Plan would survive, the EPA's (Environmental Protection Agency) Administrator, Gina Mc Carthy, has claimed. The Republicans have already tried in Congress to block the rules, and have been very critical of the EPA during the campaign trail, but Mc Carthy defiantly stated: "there is a record and there are courts to protect that, and it is going to be the same with the Clean Power Plan".

Her comments came a day after the Senate's passing of two resolutions aimed at blocking the Obama administration's rules that would cut heat-trapping carbon dioxide emissions from power plants. Those rules could mandate cuts of 32% in the carbon dioxide emitted from power plants by 2030. (PW)

MEDIA PARTNER

The Second CIS & CEE Downstream Project Management Conference**CEEP is a media partner of the Second CIS & CEE Downstream Project Management Conference, taking place in Milan on the 9th and 10th of December.**

With the downstream industry balancing precariously on low oil prices, refineries and petrochemical plants are striving to boost their profits by increasing capacities and upgrading plans. National oil & gas companies in the CIS and CEE continue to invest in the production of these resources: SIBUR and Gazprom in Western Siberia, Rosneft in the Russian Far East, the MOL Group in Hungary, KazMunayGas in Atyrau, the LOTOS Group in Gdańsk, SOCAR OGPC's new, petrochemical complex of Turkmengaz, and many more.

The conference will focus on new modernisation and construction projects in the CIS & CEE region, covering the specifics of building efficient co-operation with local design institutes and engineering companies, and creating bid-to-win contracts. Gazprom Neft, Eni Refining & Marketing, SOCAR, Kazakhstan Petrochemical Industries, SOCAR Polymer, MOL Group, and KazMunayGas will all share their views and expectations on capital projects. While Maire Tecnimont, Yokogawa, Techint, SB&I, ExxonMobil, Dow Chemical, Sandvik, Giprogazochistka, Intratool, Belsim, and Afton Chemical will provide insights on how to meet these expectations and improve project performance.

Visit www.globuc.com/cisdownstream or request additional information from Elmira Gabidullina by email at: e.gabidullina@globuc.com, or phone: +44 (0) 845 868 8234.

Czech brown coal mining to be expanded

The Czech government has modified the regulations which determine the development of brown coal (lignite) mines, and as a result, an additional 150 million tonnes of brown coal will be extracted.

The Prime Minister, Bohuslav Sobotka, declared that the government acted in order to ensure a sufficient supply of coal to power plants and households, as well as to secure the existence of at least 3,000 workplaces, and create up to 5,000 new jobs. The acquired brown coal will ensure heat at affordable prices for 650,000 households, and its extraction will be continued until 2055.

The project will be operated by local company, Severo-ceske doly, a subsidiary of the state-run CEZ AS group, which extracted 21.6 million tonnes of brown coal in 2014. (WN/JA)

UK's Coal Plants to be phased out by 2025, or will they?

By way of contrast with the Czech Republic's coal expansion plans, the UK's remaining coal-fired power stations will be shut by 2025, with their use restricted by 2023. Energy Secretary, Amber Rudd, wants more gas-fired stations to be built.

However, only one large plant is under construction today, and another, which secured a subsidy last year, is struggling to find investors. Also, the coal power plants will be saved from closure, if they are able to install carbon capture and storage (CCS) before 2025. As for the UK's electricity-mix, gas is already ahead of the pack of energy sources, with 30.2%, followed by Renewables with 25.3%, Nuclear with 21.5%, and lastly, Coal with 20.5%. (PW)

TWEETS OF THE MONTH

2015

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Ambassador Schnepf & Chairman Jerzy Buzek were among those who offered remarks at today's Europe-US LNG Rountable II



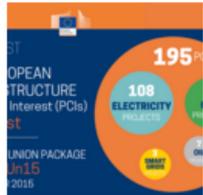
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A new PCIs list goo.gl/A44nnl



Dominique Ristori @ristori20

Major step towards #EnergyUnion: new #Energy #infrastructure #PCIList: goo.gl/A44nnl #StateEnUn15

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PICTURE OF THE MONTH

Ms. Kolinda Grabar-Kitarović, President of Croatia, addressing the Atlantic Council Energy and Economic Summit in Istanbul. One of the Summit's key topics was the North–South Corridor, which is a set of interrelated energy infrastructure projects, aiming at connecting Central European markets, both with each other, and with the Western part of the continent. A major report, titled “Completing Europe. From the North–South Corridor to Energy, Transportation, and Telecommunications Union” was published last year at the same conference by CEEP and the Atlantic Council. The report provided an impetus to overcoming historically rooted East–West biases in cross-border transmission systems by implementing complementary North–South connections.



Central Europe Energy Partners (CEEP) represents 25 energy and energy-intensive companies and organisations from six Central European countries, employing over 300,000 workers, with a total annual revenue of more than EUR 50 billion. CEEP is the first major body to represent the energy sector companies from the region at the EU level. The aim of CEEP is to strengthen the region's energy security within the framework of a common EU energy and energy security policy. CEEP is an international non-profit association with its headquarters in Brussels and a branch in Berlin.

CEEP REPORT

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