EUCERS Newsletter

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Introduction

In this Month's Edition:

Dear readers and friends of EUCERS,

It is my great pleasure to welcome you to this latest edition of the EUCERS newsletter, in which we present you with two articles.

In the first article, Christoph Frei, the Secretary General of the World Energy Council, explains the framework of the new energy realities and what governments, companies and consumers need to prepare for.

In the second article, Deniz Tura, an independent energy analyst and researcher, gives a preview of this week's OPEC meeting and possible outcomes and implications.

Furthermore, the newsletter will inform you about current activities at EUCERS, including the announcement for the launch event of the latest EUCERS study on "Options for Gas Supply Diversification for the EU and Germany in the next Two Decades".

Feel free to keep us informed about your research projects and findings as we look to remain at the forefront of new knowledge and innovative ideas.
Thank you for your interest in EUCERS and for being part of our community.

Yours faithfully,
Thomas Fröhlich
EUCERS Newsletter Editor

ARTICLES

The new energy realities

By Christoph Frei

We are now beyond the tipping point of a global energy transition. For the energy sector unprecedented speed of change poses a wide range of challenges for producers, utilities, policy makers and the involved financial sector.

Christoph Frei is the Secretary General of the World Energy Council (WEC). Before joining WEC, Christoph Frei was Senior Director, Energy Industries & Policy at the World Economic Forum (WEF) and a member of WEF's Executive Council (2001–2009). Previously he held various positions as Research Fellow and Lecturer at Swiss academic institutions and is an adjunct professor at the Swiss Federal Institute of Technology (EPFL), Lausanne.

The World Energy Council has been exposing the myths that were informing the energy debate and has highlighted the reality of the challenges we face in delivering secure, equitable and environmentally sustainable energy for the greatest good of all. Now, the sector is preparing for new realities.

The energy transition has accelerated. The price of renewable energy technology has continued to fall; utilities in advanced markets have responded by restructuring their operations and creating new business models.

Unconventionals have reshaped global gas & LNG markets and investments in hydrocarbons have contracted on the back of falling prices. Investors are struggling to understand the future for energy over the 20-30 timespan that underpin many investments and many now look for more flexible and rapid payback solutions. The discussion of peak oil has moved to a discussion of peak demand and the fear of stranded private sector assets is shifting to a fear of stranded country owned fossil resources.

The new reality for the energy demand is slower growth with faster underlying transformation. The global population is growing at a slower pace and its center of gravity continues to shift to eastwards. BR(I)Cs are in a new normal and lost steam as drivers of global GDP and underlying energy demand.

More and different cars are being built, electrification of the energy demand is accelerating, digitalisation is empowering consumers, and investors and civil society are becoming more active energy players. The number of people without access to any form of modern energy has decreased to 1.1 billion and new business models deliver innovative solutions to rural households.

Climate change, more than ever, has become an overarching issue, which impacts the future of energy and acts as a major driver of the energy transition.

At COP21 in Paris 196 nations accepted the climate science and made substantial commitments in the form of Intended Nationally Determined Contributions (INDCs) to reduce the greenhouse gas (GHG) emissions. The energy sector is a major contributor to GHG emissions and many countries' submitted INDCs impact heavily on the production and use of energy. Current rates of GDP decarbonisation need to rise from a past 45-year average of just 1% to at least 6% in order to keep global warming below 2 degC while the carbon budget of 1000 Gt (or 600 Gt for the 1.5 degC objective) stands against 2800 Gt equivalent of GHG emissions from proven fossil fuel reserves. Energy has become a head of state matter in a context of more complex geopolitics.

Meanwhile, direct climate change effects are already posing a major challenge. Extreme weather events have increased by a factor four (!) over the past thirty years, and the energy water nexus is becoming a more pressing issue in China, India, Africa and Latin America.

Resilience of energy systems and unconventional gas fields to power transmission lines is now a major issue. Besides natural risks, cyber threats keep energy leaders in Europe or North America awake at night. With accelerating energy systems integration, resilience is no longer just about returning single assets to full operation after a disruptive event. When interdependent parts of a system are blacked out, the system as a whole is at risk of being deadlocked.

The energy sector is facing continuously evolving frontiers. Changing market dynamics, constantly evolving innovation and technology options, new business models, shifting supply and demand centers, climate policy and resilience preparedness all represent new frontiers than to be embraced.

It is clear from the research produced by the World Energy Council and the intense highest level dialogue held around the world that energy is undergoing a grand transition at unprecedented speed.

There is no such thing as business as usual. Companies that stand still, fall back, countries that do not adapt to new realities put their prosperity at risk and investors that take the wrong decisions will see their investments disappear. The choice is, either to innovate or vanish.

In a world of great uncertainty, governments, business leaders, investors, and society will have to rethink the energy contract and gain a deeper understanding of these new energy frontiers and find innovative ways to avoid deadlocks. This will allow for timely decisions and delivery of integrated, effective and efficient infrastructure, which will place them in a stronger position to shape the transition to the greatest benefit of all.

Will R-OPEC regain control of global oil supply?

By Deniz Tura

Deniz Tura is an independent energy analyst and researcher. She has a background in energy project finance and ample experience in project development and finance Central Asia and the Middle East. Deniz Tura holds degrees in Geological Engineering (Middle East Technical University, Ankara) and Business (Harvard). As a Chevening Scholar she got an MBA from the University of London/UK.

The world economy is waiting for a decision out of OPEC's November 30th meeting in Vienna. It is expected that OPEC will announce a decrease, or at least a freeze, in their oil production and Russia this time is poised to join their efforts. On the surface it seems to be a good strategy of the new 'R-OPEC' to join forces in pushing the oil price up. However, there are serious doubts about the long term effects on the oil prices, the commitment of individual R-OPEC members, and the reaction of the rest of global oil producers.

During the World Energy Congress (WEC) Istanbul on October 10, 2016, Saudi Arabia's Energy Minister Khalid Al-Falih announced a preliminary consensus on a production freeze or cut among OPEC members during their previous meetings in Algiers in late September. On top of that, President Putin announced at the WEC that Russia will consider joining OPEC's efforts in order to bring stability to the energy sector. Russia is a not an official OPEC member and historically all but concurred with OPEC's decisions. Last week however, Saudi and Russian Energy ministers met in Doha ahead of this week's OPEC meeting which signals despite a general rapprochement there are likely to remain sizeable areas of future work for both parties.

To begin with, a first challenge for OPEC is to create consensus among its diverse members. Individually, all member countries have rather strong reasons to oppose such a reduction of their production. Iraq, Iran, Libya and Nigeria are still reeling from fragile economic conditions, regionals conflicts and other factors. During the last two years, Saudi Arabia's attempts to keep the oil price low let got the country in a perfect storm – with declining oil revenues, declining global demand, domestic budget deficits and an expensive military conflict at its southern border. The low oil price led to a decline in investment in the sector in all OPEC countries and domestic economies were severely hurt. In an environment where every member country individually is striving for higher oil revenues, it will be quite an achievement in itself if OPEC can actually agree on a production cut. It will be remarkable to see whether OPEC's member states will reach consensus in order to collectively benefit from potentially higher oil prices and if any member countries will manage to stipulate exemptions to the agreement.

But let's assume OPEC can pull this off. It is then a second historical step to win Russia over to join and agree to this policy. Russia suffered similarly to all OPEC countries from low oil prices at the same time as Russia's economy hurts from the sanctions imposed by US and EU. Despite considerable domestic opposition to join OPEC's strategy, Russia siding with OPEC will increase the likelihood of OPEC's success in raising global oil prices – which ultimately will benefit Russia. Besides, this decision will have also broader geopolitical implications in a world already highly polarized over Syria and other issues. It remains open how committed Russia will stay and whether 'R-OPEC' is a one-off or an emerging new force in the market.

Even if we assume that the November 30th meeting in Vienna produces the expected results, the most fundamental question still remains as to how global oil prices will actually react to R-OPEC's decision? The world has changed since 1973 when OPEC held a quasi-monopoly and its decision to cut production put the world into a recession. Though OPEC still controls 40% of the world's oil production, new discoveries, and the advancement of technology brought many new players in to the industry, such as US's shale oil producers. Russia's 11% share in the world's oil production will give R-OPEC control over half of the world's oil production.

The other half of production, though, is controlled by International Oil companies (IOC's, e.g. Exxon, BP, Total) as well as national oil companies (NOC's) that are non-OPEC members (e.g. Statoil, Petrobras). Incidentally the CEO of Total, Patrick Pouyanne, made it clear during the WEC that - unless host governments restrict their production levels - R-OPEC's decision might very well be taken as an invitation to increase production. After all, shareholder interests might cause IOC's to exploit the opening up of market shares in case R-OPEC countries recede, given the polypolistic structure of the other half of the global market. Over the last two years, IOC's also suffered from the low oil prices but, crucially, they reacted by dramatically cutting costs and investing in technology, most notably an unprecedented digitization of the industry. As a result operational efficiency of key IOC's and NOC's strengthened. This stands in stark contrast to many OPEC members where low oil prices have weakened the industry and held back innovation.

Further to the changes in industry structure, the success of R-OPEC's strategy might be hampered by the fact that the future of the oil industry increasingly is not determined by supply but rather by (declining) demand. Currently, the old debate on 'peak oil' (-supply) has been replaced by 'peak-demand' among the industry leaders. The demand side in global oil markets has already slowed down, as due to gains in energy efficiency and a slow but steady rise in renewables. Success stories such as in Germany which now sources a third of its energy from renewables and the rise of renewables in China and other emerging economies have raised serious doubts about the assumption of a steady and stable demand for oil . The 2015 Paris agreement on climate change is putting further pressure to reduce fossil fuel consumption in many industrialised democracies.

As a conclusion, this week's announcement in Vienna might represent a remarkable political return to strong coordinated action by OPEC. Of course, Russia's support is a significant milestone and – if anything else - will certainly have long-term geopolitical implications. But the crucial place to look now is the reaction of the other half of the world's oil suppliers to R-OPEC's decision. The decision to freeze or cut production by R-OPEC might certainly have an immediate impact on the oil price short term. Given the current market structure and the ongoing strains on the demand side it is highly unlikely though that we will see pre-2014 price levels any time soon.

DISCLAIMER

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

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ANNOUNCEMENTS

Launch of new EUCERS/EWI Study

EUCERS together with the Energy Research & Scenarios GmbH, Cologne has published a study on "Options for Gas Supply Diversification for the EU and Germany in the next Two Decades".

The report, funded by the German Federal Foreign Office (Auswärtige Amt), was presented in a launch event on Thursday, 27 October 2016 in Berlin and will be launched on **12 December 2016** in London.

To attend the London launch, please RSVP to carola.gegenbauer@kcl.ac.uk

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We are delighted to announce that Iain Conn, Group Chief Executive of Centrica plc, has joined the EUCERS Advisory Board. Iain Conn has been the Group Chief Executive of Centrica plc since 1 January 2015. He was previously chief executive, downstream, BP's refining and marketing division, a position he held from 2007 to 2014. Iain was a board member of BP for 10 years from 2004 and had previously held a number of senior roles throughout BP including in trading, exploration and production, and the management of corporate functions such as safety and human resources. He also served as a non-executive director and senior independent director of Rolls-Royce Holdings plc from January 2005 until May 2014.

EUCERS ON THE ROAD

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

28.11.2016 Brussels, Belgium	Friedbert chaired 6th Energy Symposium 49+2 with Miguel Arias Canete and Günther Oettinger.
24.11.2016 Düsseldorf, Germany	Friedbert moderated a panel at the 9th German-Russian Resource Conference on "Germany's Climate Goals: Chances or Risks for Natural Gas?".
23.11.2016 Berlin, Germany	At the European Gas Forum in Berlin in the end of November, Friedbert spoke on "Natural Gas in a Global Context - How is LNG Transforming European Markets?".
18.11.2016 Emmelsum/ Wesel, Germany	Frank gave a presentation "Energy Prices, Climate Change and Geopolitics" at the annual international sales conference of the Clyde Bergemann Power Group.
14.11.2016 Nha Trang City, Vietnam	Frank gave a presentation on "Oil and Gas: Energy Prices, Geopolitics and Implications for Resource Competition and SLOCs" at the 8th South China Sea International Conference "Cooperation for Regional Security And Development", organized by the Diplomatic Academy of Vietnam (DAV)/Vietnamese Foreign Ministry, the Foundation for East Sea Studies (FESS) and the Vietnam Lawyers' Association (VLA).
10.11.2016 Singapore	Frank gave a presentation on "China's Coal Investments Abroad: The Overlooked Climate and Energy Challenge" at the Energy Studies Institute Workshop: "Singapore-China Energy Forum 2016: Energy and Environmental Strategies in China's Five-Year Plan and Beyond".
27.10.2016 Berlin, Germany	Friedbert chaired the EUCERS/EWI study launch in Berlin hosted by the German Federal Foreign Office, who funded the joint study.

PUBLICATIONS

Pflüger, Friedbert, "Europas Erdgassektor und das Streben nach Energiesicherheit – Geopolitik, aktuelle Entwicklungen und Auswirkungen auf die breitere Sicherheitsdebatte" ("The Europe's natural gas sector and the pursuit of energy security - geopolitics, current developments and impact on the wider security debate" in: Internationale Sicherheit im 21. Jahrhundert ("International Security in the 21st Centruy"), Bonn University Press.

Umbach, Frank, “The Future of OPEC“, in: Geopolitical Intelligence Service (GIS), 29 November 2016, 6 pp. (https://www.gisreportsonline.com/the-future-of-opec,energy,2061.html).

Pflüger, Friedbert, “Small but effective changes will save the world”, in: Handelsblatt Global, 21 November 2016 (https://global.handelsblatt.com/opinion/small-but-effective-changes-will-save-the-world-647173 21)

Umbach, Frank, “Oil and Gas: Energy Prices, Geopolitics and Implications for Resource Competition and SLOCs”, background paper for my presentationat the 8th South China Sea International Conference “Cooperation for Regional Security And Development”, November 13-15, 2016, Nha Trang City/Vietnam 15pp.

Umbach, Frank, „Die Rolle der Kohle in der Energiesicherheit und Energieaußenpolitik Chinas“ (”The Role of Coal in China’s Energy Security and Energy Foreign Policy“), in: Politische Studien (Political Studies, ed. by the Hanns-Seidel-Foundation, Munich), No. 470, November-December 2016, pp. 64-77.

Umbach, Frank, „Die ukrainische Energieaußenpolitik orientiert sich nach Europa” (”Ukraine’s Energy Foreign Policy Is Orientating Oneself towards Europe“) , in: Europäische Sicherheit & Technik (European Security & Technology) , November 2016, S. 28-30.

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

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