

OLIVIER APPERT

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Valérie Ducrot, Executive Director of Global Gas Centre

Ladies and gentlemen, it is a great pleasure for me to chair the workshop on energy and environment. We have heard a lot today with very insightful sessions and it is a great pleasure for me to welcome the very knowledgeable people on this panel. I will immediately start with Mr. Appert. The floor is yours.

Olivier Appert

Thank you. The Russian invasion of Ukraine is clearly a wake-up call. Geopolitics is a key dimension in the energy sector. I would like to quote André Giraud, former Minister of Industry during the second oil shock in France, who used to say oil is a resource with huge diplomatic and defense dimensions, with a fiscal content and marginally calorific value. The same also applies for natural gas, so in my presentation I will, first, develop the main dimensions of the geopolitics of the energy sector and then I will come back to the decisive turning point of 24 February and then I will highlight the ongoing tensions in the oil and gas sector.

Geopolitics has always been a key dimension of the oil sector. This is due to the concern of security of supply. The unequal distribution of oil and gas reserves is an important concern. One can make a map wherein the size of each country is related to the importance of its oil reserves, which would clearly show the geological anomaly of the Middle East. The same applies to natural gas. Two-thirds of gas reserves are located between the 50th and the 70th meridians, specifically Russia, Iran and Qatar. However, this does not include nonconventional resources. The revolution of nonconventional hydrocarbons is a major game changer for geopolitics. Today, the United States is the first producer of oil and petroleum products in the world. In 2020, they became independent for their energy supply for the first time since 1952. This game changer has had a major impact on geopolitics. For example, in 2020, Barack Obama highlighted that the country regains an important degree of latitude in their diplomacy thanks to their energy autonomy.

The Ukrainian conflict is a clear example of this return of geopolitics. Thanks to their renewed energy independence, the US was claiming leadership on the world energy market and also in the supply of Europe. On their side, Russia, the first gas exporter, is threatening the energy weapon, which has been made afterwards. The political situation of the Middle East is always unstable. The election of Joe Biden confirmed the disengagement of the US in the Middle East. China and Russia are taking this opportunity to increase their influence in the region.

The wars in Libya, Syria and Yemen are not yet solved and the withdrawal of the US from the JCPOA with Iran is creating further uncertainties. This unstable situation is a real threat for the energy sector due to the importance of the energy resources in this region.

China is a key player in the world economy. Regarding the share of China in the growth of some industrial and energy indicators since 1978, China has accounted for more than 80% of the growth of coal and steel demand worldwide and 60% of carbon emissions. As the largest energy consumer and CO₂ emitter in the world, China is a key player, with rising geopolitical tensions as a major stumbling block. As the energy supply is the Achilles heel of its economy, China is developing dynamic diplomacy all around the world, including with the Middle East, Russia and Africa.

We should not ignore the geopolitical challenges linked with the energy transition, and I will be very short due to the excellent discussion during the preceding session. Renewable energy requires growing amounts of critical raw material. Access to and the prices of many resources, including such critical raw materials as cobalt and copper, are a challenge. China has clear leadership in critical raw materials. China has also a quasi-monopolistic position on certain technologies, such as solar panels and batteries.

The invasion of Ukraine by Russia on 24 February is a decisive turning point. This dramatic event has had a major impact on the energy scene. I just remind you that Russia is a key player on the energy market. It represents 6.4% of oil reserves and 17.3% of gas reserves. It is the third producer of oil and the first exporter of natural gas. Europe was heavily relying on Russian energy supplies. 26% of European oil imports, 46% of gas and 60% of coal came from Russia. Vice versa, the Russian economy is relying in energy exports to Europe. The total energy exports of Russia represent 25% of its Gross Domestic Product and 57% of its exports. For the last 20 years, this mutual dependence was a win-win solution. It is now over. The Ukraine invasion impacted the gas market immediately in both Europe and Asia. Volatility and prices increased dramatically. The same happened for oil and electricity.

Most European countries reacted to mitigate the impact to the final consumer. The European Union rapidly took embargo measures on coal and oil. We may question the real impact of these measures on the Russian economy. The coal and oil markets are both deep and Russia has been able to redirect its exports. For example, India increased its imports of oil from Russia by a factor of 10. However, the situation is fundamentally different for natural gas. Clearly, therefore, in the near future we may anticipate geopolitical tension on the oil and gas market. The oil market will face growing tensions due to a lack of investment in exploration production, which has been reduced by a factor of two since 2014. At the same time, demand for oil continues to grow. It will not be possible to compensate for the natural depletion of existing fields, which is estimated at about 6% per annum, without investment. For example, the IEA estimates that for the next 10 years the production of new fields to be developed amounts to 20 to 30 million barrels per day for a total market of 100 million barrels per day. The oil market will be stretched, as you experienced 15 years ago.

At the same time, the market has been rebalanced thanks to the dramatic growth of nonconventional oil in the US. However, it may not be surely the case in the future. There are significant uncertainties, both technical and economical, for the development of nonconventional oil in the US. For example, the Energy Information Agency estimates that US

production will reach a plateau in 2030 and then start to decline. The situation will clearly increase the power of OPEC+ on the market. On 12 April of 2020, reacting to the COVID crisis, OPEC+ decided to reduce its production quotas by 9.7 million barrels per day for a total market of 100 million barrels per day. Afterwards, it decided to slowly increase its production, keeping a clear grasp on the market. On 5 October of this year, OPEC+ again decided to reduce its quota by 2 million barrels per day. This renewed control of the market is a major geopolitical game changer and a major upset for consumers.

The natural gas market is tightening. This is a clear challenge for Europe, which relies heavily on Russian supplies. LNG is a unique alternative. For the last six months, LNG imports jumped to 40%. At the same time, the share of Russian gas supplies to Europe dropped from 40% to 10%. There are, however, many bottlenecks, such as liquefaction, LNG carriers, regasification plants. This winter, the gas storages are almost full, but we may question the situation for the next winters. In fact, the liquefaction capacity is stretched all around the world. New liquefaction plants are under construction in Qatar, the US and Australia, but they will not come to the market before 2025/2026. In a nutshell, the geopolitics will be an inescapable challenge of the energy sector for years to come. It is clearly urgent to integrate this dimension into the energy policies to be put in place all around the world. Thank you.

Valérie Ducrot

Thank you very much, Olivier. I just want to mention that Olivier is the Chairman of France Brevets, scientific adviser to the Centre for Energy and Climate of Ifri and former President of the French Energy Council. There are maybe some questions in the room for Olivier at this stage. Yes, please.

Nicolas Piau, Co-Founder and CEO of TiLT Capital Partners

I am Nicolas Piau from TiLT Capital, an energy transition investor. Do you potentially see an issue with what I would call the perfect storm with the financing, because I think in the US today 60% of bank loans and high-yield bonds are structured against the unconventional oil and gas market, and it is a market that has been structurally in deficit in terms of cash flows. Do you see that as a potential additional risk in the oil and gas market for future supplies?

Olivier Appert

There is clearly an evolution of the financial industry towards investment in oil and gas. There is an increasing reluctance of the financial institutions, the banks and the lenders to lend for exploration and production of oil and gas. There is a specific dimension in the US with nonconventional hydrocarbons because in the past I would say, five or 10 years ago, they would just invest. Now, they are not investing, as it was in the past. They are taking into account the profitability of these investments. In the past there have been huge failures of many companies and now they are very cautious in the US. That is why, in the evaluation of the Energy Information Agency of the US, they do not anticipate an important increase of the nonconventional oil supply. There will perhaps be some increase, but there will be a plateau. That is not the case specifically for natural gas because it is easier and also there is the outcome of LNG on the world market. The world requires more and more natural gas.



However, there are no new investments. The international oil companies are now mostly investing about 50% in oil and gas and 50% in the transition economy.

Valérie Ducrot

Thank you, Olivier. Other questions? Yes, please, Mr. Chalmin.

Philippe Chalmin, Founder of Cercle Cyclope, Professor at Paris-Dauphine University, consultant for various international organizations (OECD, EEC, UNCTAD)

You spoke about a liquefaction bottleneck. Is it not a regasification bottleneck in Europe?

Olivier Appert

Clearly it is a regasification bottleneck. Thinking back to Putin and Trump, at that time Trump was asking Germany to invest in regasification. They were strongly opposed to any such investments. They recently decided to buy new regasification, but it is not sufficient. That is why there is this agreement between France and Germany. France is delivering natural gas from the LNG regasification plant in France and, vice versa, Germany is, unfortunately, producing electricity from coal. However, there are also bottlenecks in liquefaction because there are only a few new plants coming on stream in the US. In Qatar, there will be a strong increase of production, but it will not come before 2026. In Europe we will be able to pass the winter thanks to all the liquified natural gas which was available on the market. It is no longer the case. All of the available supply has been used, and I am afraid that the next two winters will be very difficult for Europe.

Valérie Ducrot

We will come back to the discussion.