



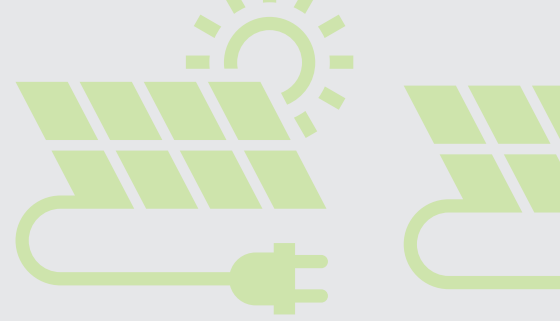
WE
MO

The logo features a dark blue square with the letters 'WE' on the top line and 'MO' on the bottom line in white, bold, sans-serif font. The square is surrounded by a collage of blue and green geometric shapes and icons representing energy and technology, including a power line tower, a solar panel, a wind turbine, a car, and batteries.

World Energy
Markets Observatory

Energy and geopolitics are strongly intertwined

Colette Lewiner



The globalization of the economy that started at the beginning of the 21st century, has benefited the Chinese economy which has experienced double-digit economic growth, and has risen to the rank of second most powerful nation challenging the United States position.

In more recent years, in several countries including China, Russia and the United States, nationalist policies characterized by the desire to regain sovereignty over certain supplies or technologies have resurfaced, creating numerous trade tensions.

This trend of de-globalization has been amplified by the COVID-19 crisis.

Since the beginning of oil production, energy and geopolitics have been linked. The concentration of oil resources and the attitude of the OPEC cartel have made oil prices correlate with political events in the Middle East. Thus, the first oil shock is linked to the embargo decreed by OPEC in 1973 during the Yom Kippur War. It is interesting to note that the oil price increase has triggered the development of other sources of energy with the exploitation of oil from the North Sea and the launch of nuclear electricity programs in France and Japan.

Russia's 2014 invasion of Crimea prompted sanctions from Europe and the United States.

More recently tensions in the Middle East have increased as a result of Iran's aggressive role exacerbating the struggle between Sunnis and Shiites.

On the energy side, two major changes have geopolitical impacts. These are the development of American shale gas and oil and the energy transition, driven by the desire to limit greenhouse gas emissions and global warming.

Since 2018, the United States' competitive production of shale oil and gas has enabled the country to become the world's largest producer of oil and an exporter of gas.

This oil independence has influenced the policy of the United States in the Middle East and towards certain countries. Thus, the United States withdrew the nuclear deal with Iran in 2019 and imposed sanctions on oil-producing countries like Venezuela and Iran.

At the same time, oil prices have decorrelated from events in the Middle East. For example, the September 2019 attacks on Saudi oil facilities had no effect on prices except for the days following the attack.

The COVID-19 crisis and the decline in the oil prices, which dropped to negative in April 2020, have deteriorated the profitability of American shale oil operations and one of the sector's pioneers Cheasapeake filed for bankruptcy in June 2020. The drop in U.S. oil production, profitable on average around \$ 50/barrel, could be another game-changer in the Middle East.

In Europe, the exhaustion of the gas fields exploited in the North Sea and the gradual closure of Groningen field in the Netherlands, will increase gas imports and Europe's dependence on Russia in particular. The U.S., which on the one hand wants to limit Russian influence in Europe and on the other hand wants to sell their shale gas, oppose the end of the construction of the Nord Stream 2 gas pipeline, which was to transport gas from Russia towards Germany without going through Ukraine.

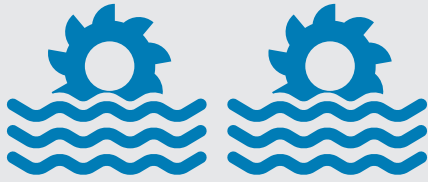
The poisoning of Russian dissident, Alexei Navalny, in August 2020 may force Germany to disassociate itself from this project it has supported so far, casting doubt on its completion date.

To be less dependent on Europe, Russia turned to China and the "Power of Siberia" pipeline was inaugurated in December 2019, allowing the export of Russian gas to China.

The discoveries of gas in the Mediterranean Sea which accentuate the conflicting relations between Greece and Turkey are a new illustration of the link between geopolitics and energy.

Following the 2015 Paris climate agreement, many countries have passed laws on energy transition to low carbon energies. The national and European stimulus plans launched following the COVID 19 crisis are accentuating this movement which is also widely endorsed by private companies.





To increase the share of renewable energies in the electricity mix, these countries have adopted support systems for wind and solar electricity, such as feed-in tariffs and tax incentives that are ultimately paid by consumers and taxpayers.

More recently, the spectacular drop in the costs of these energies (-18% per year for photovoltaic electricity) associated with that of batteries has allowed them to grow impressively. Thus, in Europe, in the first half of 2020, the production of electricity of renewable origin was higher than that of fossil origin.

Paradoxically, solar energy, which is national since its “fuel” is the sun, relies heavily on solar panels imported from China. Unfortunately, the massive subsidies from European countries in favor of solar development, instead of creating a European industry, will have favored these imports at low prices leading to the bankruptcy of several European equipment manufacturers. Europe, aiming to reduce prices in the short term, has not imposed tariffs on solar panels, unlike the United States, which has consequently managed to repatriate certain productions.

Electric batteries, an essential complement to renewable energies that are intermittent, are widely manufactured in Asia. Europe is trying to react: French and German stimulus plans are subsidizing electric vehicles and the two countries launched in 2020 a joint project called “Battery Airbus” to build factories in their respective countries; some achievements such as the PSA-Total (Saft) agreement are emerging.

Europe is seeking not to lose its relative lead in hydrogen manufacturing, an area in which it has two leaders Air Liquide and Linde. Massive subsidies for “green” hydrogen are foreseen in European, French and German stimulus plans. It should be noted, however, that in 2019 China launched a comprehensive hydrogen plan.

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The energy transition is based on equipment that contains rare earths and rare metals. These are either mined or refined in China, such as lithium, cobalt or graphene, all used for batteries. The West used to produce some of these minerals, but for environmental reasons it let this activity go to China. Today after the United States, Europe is launching a strategic plan to repatriate part of this production and ensure its sovereignty.

Finally, Sino-British tensions around Hong Kong and Huawei’s equipment ban will likely have a negative impact on CGN’s participation in the construction of nuclear reactors in Britain.

With the development of renewable energies, the geopolitical energy related tensions should have decreased as their fuel (sun and wind) is universally shared.

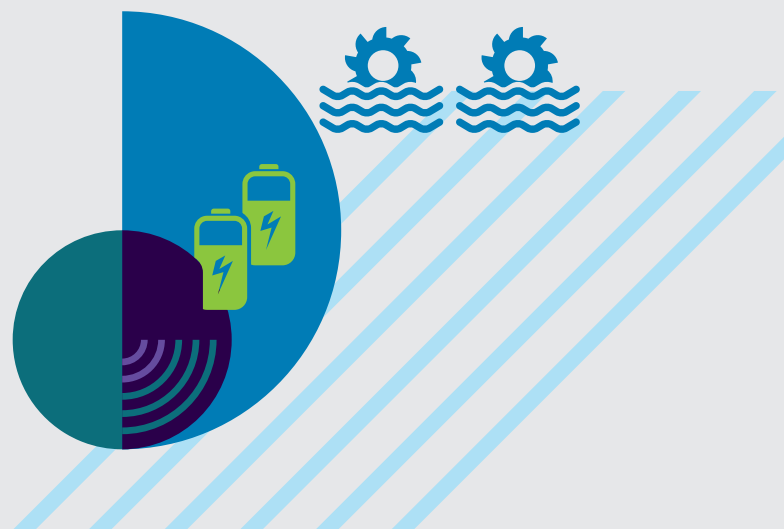
This is not the case as China, technology and manufacturing power are creating loss of sovereignty risks for developed countries. This illustrates that beyond oil and gas procurement, strategic thinking and technology are becoming the new fuels for the future.

In conclusion, history has shown that energy and international relations are strongly intertwined which can be explained by the vital role of energy in human well-being and in the economy.

A perspective from our Capgemini expert:

Colette Lewiner

Senior Energy Advisor to Capgemini Chairman





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