

BNP PARIBAS PERSPECTIVES

Experts' views on the green and social transition

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How the geopolitical situation confirms the urgency of the low-carbon agenda

Enhanced support for the transition of our clients

by Séverine Mateo, Global Head of the Low-Carbon

Today's geopolitical turmoil is increasing tensions in the fossil fuel markets.

In order to strengthen the resilience of the European energy system, the European Commission is working on the REPowerEU plan, with two objectives: to diversify gas

supplies and to increasingly reduce dependence on fossil fuels. This plan consequently boosts the actions initiated by the Green Deal in 2021. Its key aims include increasing the production of renewable energies and alternative fuels, accelerating the development

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of hydrogen, and enhancing the electrification and decarbonisation of industrial processes, mobility and buildings.

The current context accentuates the challenges (industrial, technological, etc.) our clients are facing, as well as the need to find alternative energies that will accelerate decarbonisation.

Huge investments will be necessary over the coming decades to reach carbon neutrality. The mission of the Low-Carbon Transition Group created by BNP Paribas

> is specifically to advise companies and institutions on their transition to this low-carbon economy. We also assist our clients in raising the capital (on public and private markets, and through equity or debt) required for this profound transformation.

Sobriety, a key element of the energy transition

The Ukraine crisis reminds us of an undeniable economic fact: depending on a limited number of suppliers is a source of risk. The European economy is highly dependent on eastern Europe for its supplies, particularly of energy (oil and natural gas) and agricultural products. The current crisis has produced fear and high price volatility, which will have an impact on social stability. Any sudden and drastic action on the supply side - such as an embargo on imports - could have a significant impact unless there is a similarly sized response on the demand side.

The current conflict has therefore brought back to the fore the issue of moderation, which was already highlighted in the 1972 Meadows report 'The Limits to Growth'. Companies must find ways to produce more efficiently durable goods with higher added value. To reduce the impact on consumers, the most effective solution is to assist their efforts to reduce their consumption, for example by supporting energy-related home renovation or circular economy.

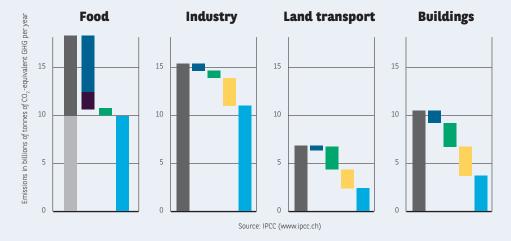
Moderate consumption, energy efficiency and low-carbon electricity production are key elements in the strategy to achieve carbon neutrality. So this crisis underlines the need to accelerate our energy transition.

Sebastien Soleille, Global Head of Energy Transition and Environment at BNP Paribas



Levers to reduce the demand for energy and our emissions

To reach carbon neutrality by 2050, the IPCC has outlined the impact of the most relevant factors for reducing energy demand. Regarding food, they are mostly socio-cultural (vegetarian diet, etc.), while for land transport, they are more linked to infrastructure (public transport) and technological advances (electric car).



- Potential total emissions in 2050 (AFOLU not included)
- Agriculture, Forestry and Other Land Use (AFOLU)
- Direct reduction of food-related emissions, excluding reforestation
- Socio-cultural factors
- - End-use technology adoption
 - Emissions that cannot be avoided or reduced through demand-side ptions are expected to be addressed by supply-side actions



An opportunity to accelerate the transition and to boost EU industrial autonomy

Europe's strategy for energy autonomy is now high on the European agenda, with the aim of facilitating climate objectives.

Geopolitical situation increases mobilisation for the energy transition

by **William De Vijlder,**Group Chief Economist BNP Paribas



A major energy transition is undoubtedly urgent for several reasons including public health, ethics, biodiversity and intergenerational solidarity.

Following the invasion of Ukraine, geopolitics can be added to this list: countries that produce essential commodities can weaponize their position in a geopolitical confrontation. The current situation has echoes of the 1970s. When the oil embargo imposed by producer countries in 1973 led to the first oil crisis, the Nixon administration launched Project Independence, which aimed to achieve energy self-sufficiency for the United States by 1980.

Security of supply is critically important for the proper functioning of an economy, as has been shown by the havoc caused by supply shortfalls due to the Covid-19 pandemic. These disruptions accelerated the debate on strategic autonomy in the EU - and the war in Ukraine has moved this topic to the top of the agenda.

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Strategic autonomy may be difficult or even impossible to achieve for certain commodities, but this is not the case for energy. To reduce the EU's dependence on

"SECURITY OF SUPPLY IS CRITICALLY IMPORTANT FOR THE PROPER FUNCTIONING OF AN ECONOMY." Russian fossil fuels by 2030, the European Commission recently proposed REPowerEU. This plan is based on two major pillars: diversifying natural gas supplies and reducing the use of fossil fuels by supporting better energy efficiency and the development of renewable energies.

Implementing this new plan would be a huge boost for the 'Fit for 55' package, which aims to deliver the EU's 2030 climate targets on the way to carbon neutrality.

The energy transition boosts industrial autonomy

by **Nicolas Bertrand,**Global Head of Industry Research at
BNP Paribas



In recent years, enhancing industrial autonomy has been a key focus for European authorities, a focus that has been further strengthened by the war in Ukraine.

The European Union aims to continue and strengthen the industrial strategy it launched in 2020. This strategy is based on two major priorities: the Green Deal (including the energy transition) and support for the digital transformation.

The strategy was confirmed on 11 March in the Versailles declaration, which also emphasized the need for greater energy autonomy for the EU.

Right now, the urgency of the situation is driving the use of alternative sources to replace Russian gas - including fossil fuels. However, all stakeholders are well aware of the precarious nature of this solution, which is diverting away some of the investment that is necessary for the energy transition. European stakeholders remain convinced of the need to accelerate electrification, improve energy efficiency, increase

the production capacity of low-carbon and renewable energies, develop the production of low-carbon hydrogen and promote the circular economy by supporting recycling. This crisis offers Europe an unprecedented opportunity to enhance

its sovereignty and reduce greenhouse gas emissions.

Major investment will be essential to support this strategy. Governments' role will be to foster a favourable environment for private capital, including several billion euros of aid for hydrogen in France and Germany. Rising oil and natural gas prices make non-fossil fuel energy sources more

cost-effective.

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Yet this could lead to a general increase in costs during the transition period, which means support measures will be necessary. BNP Paribas is ready to play its part and to accompany its clients in their transition efforts.

Impact of the crisis on the strategies of Germany and the Middle East

Although the crisis may have a short-term impact on certain aspects of the transition, it should quickly lead to a further acceleration in clean energy development.

Germany intensifies efforts to become independent of imported fossil fuels

by **Eva Meyer,** Head of Company Engagement at BNP Paribas Germany



Germany is highly dependent on Russian energy, currently importing 55% of its gas, 34% of its oil and 26% of its coal from Russia. The government is therefore intensifying efforts to become independent from imported fossil fuels and to ensure energy security. At the same time, it is seeking to maintain its goals of greenhouse gas neutrality by 2045 and 65% emission reductions by 2030 compared to 1990 levels.

To reduce Russian energy imports in the short term, the focus is on diversification of energy imports; storage of steam coal

65%

Germany is seeking 65% emission reductions by 2030 compared to 1990 levels and natural gas; and energy efficiency measures for households and industry.

The biggest challenge will be to replace Russian gas, which accounted for more than half of German gas consumption last year. In the short and medium-term, gas will be replaced by coal and re-

newables for electricity generation (15% of gas consumption). This is why the government has suspended the closure of coalfired power plants. In the medium to long term, the government plans to expand renewable energies, Liquefied Natural Gas (LNG) terminals and the hydrogen economy.

In mid-April, the 'Easter package' of the German climate emergency programme was presented. This aims to accelerate the expansion of renewable energy on land and at sea so that the country's electricity supplies will be based almost entirely on renewable energy sources as early as 2035. Higher expansion targets have been set to reach the goal of 80% renewable power (some 600TWh) in the mix by 2030.

Expansion rates for onshore wind energy will be stepped up to 10GW a year, to bring installed onshore wind capacity to around 115GW in 2030. Solar energy expansion rates will be pushed up to 22GW a year, bringing the installed solar capacity to around 215GW in 2030. Offshore wind capacity should increase to reach 30GW by 2030 and 70GW by 2045. The Easter package also includes 19 new grid expansion projects. Overall, there will be an increase in coal power in the short term, but the low-carbon agenda will be maintained in the medium to long term.

A key role for Middle Eastern countries in the global energy transition

by **Amine Bel Hadj Soulami,** Head of Middle East and Africa at BNP Paribas CIB



Russia's assault on Ukraine has disturbed global energy markets and shifted the climate policy conversation. Most attention has focused on European energy security and how the crisis may shape the region's decarbonisation plans. But the war's impacts will reverberate everywhere, including in the Middle East.

Shifting priorities to energy security and access may delay the energy transition in the short term. However, in the medium-to-long run, the war will accelerate the clean energy transition and countries' efforts to reduce dependence on oil and gas. Domestically produced clean energy will provide flexibility and security, reducing energy cost volatility and supply disruptions.

From a Gulf Cooperation Council (GCC) regional perspective, hydrocarbon-rich Middle Eastern countries have a key role to play in the global energy transition. The UAE is committed to net zero by 2050; Saudi Arabia and Bahrain by 2060. Greater focus is being placed on liquefied natural gas (LNG), and countries exporting gas are likely to

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see a structural increase in demand from Europe. GCC countries – notably the UAE and Saudi Arabia – have made progress in developing utility-scale solar and wind power.

This momentum also opens the door to the production of cost-competitive green hydrogen, an important enabler in the decarbonisation of manufacturing and mobility. The GCC holds significant advantages here, due to abundant, low-cost solar and wind power. The costs involved in green hydrogen are well-identified challenges but should not derail ongoing projects.

The region's countries would be well-served to use their fiscal surpluses to fast-track the development of renewable energy, hydrogen, ammonia export and carbon-capture projects in order to be well prepared for the post-oil age.

The private sector should support public sector efforts in the transition

The private sector is in the forefront of supporting public funds in the transition efforts. BNP Paribas has recently strengthened its ambitious objectives.

Maintaining our commitment in the context of an unexpected crisis

by **Laurence Pessez,** Global Head of CSR at BNP Paribas



The Bank made a major commitment by joining the Net Zero Banking Alliance in 2021. In this context, we published our first alignment report in early May, announcing a 12% reduction of our credit exposure to oil and gas exploration between 2020 and 2025. This includes a 25% decrease in our credit exposure to oil production over the same period of time. Thus, we are committed to these objectives for several years. In addition, our baseline is significantly lower than the global average and that of most of our peers, as we had already begun to reduce our support for fossil fuels before 2021.

The Ukraine crisis has not changed our commitment and it should certainly not be used as a reason to delay the transition process. Climate change is not a matter for negotiation. On the contrary, the geostrategic situation has motivated us to intensify our efforts in the field of energy efficiency and the development of low-carbon energies – both renewables and nuclear. In particular, we have recently carried out numerous transactions to develop green hydrogen production capacity.

The conflict underscores the link between energy security and climate change

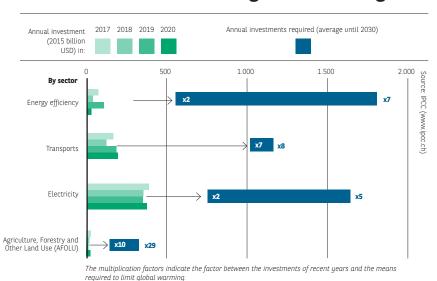
by **Alexander Bernhardt,** Global Head of Sustainability Research at BNP Paribas Asset Management



The ongoing geopolitical conflict in Eastern Europe is significantly impacting energy supplies and energy security. Negative economic effects include high inflation due to commodity supply disruptions and economic sanctions. This situation emphasises the need to accelerate the energy transition in Europe and elsewhere. If Russian oil and gas supplies are further disrupted, Europe will face a difficult short-term choice: resort to readily available high-emission technologies (such as coal) to fill the supply gap, or impose austerity measures to reduce energy demand.

To mitigate the current situation and avoid such issues in the future, significant investment is needed now to bolster domestic renewable energy infrastructure. This would improve energy security by reducing reliance on foreign oil and gas, mitigate climate change by lowering emissions, and reduce inflation risk since renewables are deflationary over the long term. For this to happen, the EU and national governments in Europe and elsewhere need to invest strongly in renewable technology and infrastructure. However, public capital alone will not be sufficient; ideally it would be structured to "crowd in" private capital by creating incentives (such as tax breaks for low-carbon investment) and de-risking projects (e.g. funding more R&D of novel, pre-commercial technologies). There is no time like the present for aligning minds and incentives towards a net-zero future.

Annual investments in mitigation to limit global warming to below 2°C



According to the latest IPCC report, investments in mitigation measures should be multiplied by a factor of three to six by 2030 to limit global warming to below 2°C. Although the sums required are substantial, this would only represent a small part of the world GDP, notes Priyadarshi Shukla, IPCC Working Group III Co-Chair. This does not take into account the economic co-benefits of the mitigation measures implemented.

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