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‘The West is divided on energy policy’

Kirsten Westphal sees the US and China in a good position in the coming energy transition. That is less true for a divided Europe

For years, you’ve been warning of the rather difficult relationship between energy and geopolitics. So far, these pleas have been largely ignored – until the Russian attack on Ukraine, that is. Have we been too naive?

In Germany, on the one hand, geopolitics is historically a very loaded term. On the other hand, there has been a lack of strategic direction in energy policy. Instead, we have relied on interdependence, in the hope that this would prevent dramatic developments such as Russia’s recent attack on Ukraine.

What geopolitical effects do you expect to see in the future if more countries switch to renewable energies as part of the energy transition? Can we avert any risks in this way?

Things will become more regional, fragmented, and heterogeneous. As we move more towards renewable energy and electrification, we need to expand our electricity grids beyond the EU and link up with our neighbours. So, compared with the global flows of fossil fuels, the renewable-energy world is becoming more regional. What’s more, countries around the world are pursuing their own individual transformation paths, drawing on technologies that can find themselves in competition with one another. They have different ambitions, including in terms of when they want to achieve their climate targets by. So, things will become more heterogeneous. That does bring risks with it. Existing geo-economic rivalries could intensify and geopolitical fault lines widen. This does also apply to the West, by the way. It is true that we are currently seeing a united West in terms of security policy. However, the West is divided on energy policy, as the US is rich in energy in every respect, while Europe will continue to rely on imports, before moving to renewable electricity and hydrogen.

So, the energy transition will not reduce global conflicts?

This transformation phase is becoming disruptive, which calls for political action at an international level. Through cooperation, we could achieve climate targets more quickly. But the signs are pointing more towards competition: for value creation, for raw materials, and for rare earths. In the future, we will see more internal conflicts over the use of water, land, and energy sites, but fewer international conflicts.

So, we'll see more conflicts over increasingly scarce space within Europe too?

Absolutely, especially at a local level. In the past, disputes were over large oil and gas deposits, but in the future, there will be a scramble for the best sites for renewables. It will be very important for Europe to involve its neighbours. But this will only be possible if the added value is distributed much more fairly. Energy transformation is based on deploying new technologies; value is no longer achieved through the resource itself, but by leveraging technology. In that sense, we have very different supply and value chains than we do with fossil fuels. The added value is now distributed much more evenly thanks to technology. And there's less of it. But this needs to settle down first for everyone involved.

You mentioned yourself that the US is very well positioned in this new power play. Europe, on the other hand, depends on its strategy and its relationship with neighbouring regions. What about China?

In my view, both the US and China are absolutely predestined to be among the winners here. China simply because of its wealth of metals, or rare earths, and its processing capacity, which it has secured in a very far-sighted way. If we want to implement the energy transition quickly and at a relatively low cost, we need to engage with China. At the same time, however, there is tension between China and the US. Europe is in a difficult position here, even more so since Russia's war of aggression.

Russia could have continued to be an energy superpower even after the fossil-fuel age. Theoretically, it's in a very good position to exploit renewables and hydrogen. But it would need technology from the West. Has the country thrown away this opportunity for the foreseeable future by attacking Ukraine?

I'm afraid so. It's a very legitimate question, because we cannot imagine a climate-neutral Europe without Russia. Part of Russia is located in Europe, and it has very large deposits of raw materials there.

So, there were certainly advantages to Russia's geography. Really, we need to re-establish links as far as the geopolitical and security situation allows. But now, with the war raging on, it's impossible to seriously plan for this.

Many other gas and oil suppliers are now rejoicing, because they are experiencing an unprecedented resurgence through the efforts to diversify European energy imports. But this comes at the expense of protecting the climate. So, how can we still define common exit paths?

That's precisely the point: the gas supply chain should be decarbonised together. At the very least, LNG infrastructure should be made H_2-ready. In the best case scenario, however, a transition to green or blue hydrogen can be negotiated. We could then also offer the long-term perspective that many LNG suppliers are now insisting on. In addition, capacity would have to be created in Germany and in Europe to produce hydrogen from natural gas. But we'd need the technology and innovation to do so. For us, the issue of hydrogen boils down to the matter of energy transformation. Hydrogen is key to the new industrial revolution and to Europe as a location. And I also believe that we need the technologies for carbon capture and utilisation.

You have warned of the danger of diversifying gas imports while under pressure and having to tie ourselves back into fossil energy. That's why you have called for this infrastructure to be designed at least in such a way that it can also be used for green or other hydrogen later on. If you look at the latest agreements with gas suppliers, can the infrastructure for hydrogen be used or are there already signs that these investments are not going to pay off?

In the past, we have assumed that energy policy should be guided by a strategic triangle of objectives: security of supply, climate protection, and competitiveness. In Germany, however, the markets were geared towards competitiveness, which is why the companies have opted for cheap pipeline gas from Russia. Politicians have set increasingly ambitious climate targets, reinforced once again by the decision by Germany's Federal Constitutional Court on becoming climate-neutral by 2045. But there has been an increasing disconnect from the implementation. The supply crisis is now bringing us back to the hard ground of reality. We are now seeing that supposedly stranded assets – assets that have permanently lost most or all of their value – are now helping us: coal-fired power plants, for example.

I find it very dangerous to focus just on looking for one solution. You need redundancies in the system. Even if we are now creating an

energy system that is more geared toward efficiency and electrification, we will have to think carefully about making it robust and resilient, bearing the N-1 rule in mind – the notion that an electricity grid shall be capable of experiencing outage of a single transmission line, cable, transformer, or generator without causing losses in electricity supply. We will have to apply the precautionary principle very strategically, especially in the case of networks and storage systems. This means something like having an extra power line and hydrogen as a back-up.

You asked whether we're on the right track at the moment. To be completely honest, we don't know what the right track is. We have modelled what the 2045 energy system should look like if everything works out. System modelling is important, but it must now be contrasted with the harsh reality. Unfortunately, not much will be implemented that quickly, both in terms of addressing the shortage of materials and skilled workers, for example, and in terms of the societal transformation. The challenge of steering this process for politicians is enormous. In the short term, we need to acknowledge the geopolitical realities and presumably also rely on coal-fired power generation. We don't have many other options at the moment, and we don't know whether things will escalate into an energy war with Russia.

European solidarity will be very important here. Do we pass this litmus test when push comes to shove?

Things are rather tense on this front. We will need to rely on solidarity: both in Germany, in particular, and with countries that warned us early on against becoming dependent on Russia. Countries that paid more for their gas because they didn't want to become dependent on Russia. In any case, we are facing an enormous challenge in terms of European cohesion, especially in view of the different speeds at which hydrogen is being developed. This will now be dramatically exacerbated by the solidarity issue. Member states in southern Europe, which have suffered from Germany's austerity policies, can now play on their geographical advantages. Italy and the Iberian Peninsula could become regional energy hubs, critical to European energy infrastructure. I also see Greece in an important geopolitical position, because the eastern Mediterranean will open vital energy corridors from Egypt and the Gulf States to Europe. Energy cooperation should be promoted there as part of conflict management. All in all, the German government needs to exercise intelligent, strategic, and credible energy diplomacy.

But what is the situation really like for coordination at a European level, for example on hydrogen? It seems that this is mostly planned at

a national level.

I'm afraid that we will soon lose the edge that we currently have in technology leadership in Europe, because other regions of the world are setting up much more pragmatic value chains. We want to lay down ambitious quality criteria and sustainability standards. For third countries, however, this can also be a hurdle. Who can deliver to such stringent criteria? This is also part of what I mean by spaces for learning and searching. We have to afford ourselves those. It is also the case that one of our bridges is being burned: the transitional energy source of Russian pipeline gas. There are also big questions surrounding Ukraine as a hydrogen supplier. This makes it even more difficult to achieve system transformation – not only in the energy sector, but also in energy-intensive industries. The opportunity to use blue and turquoise hydrogen has also become thinner.

But do you still not think we're in a good position?

We are politically blinkered. I am sure that we need technologies such as CCS, underground CO_2 storage, and CCUS (carbon capture, utilisation, and storage) to achieve negative emissions in the future. We must open up to this debate. Plus, our models have not yet shown what the circular economy will look like and what recycling means for energy requirements, but also for redistribution of the value chain. We have to think about how to balance security of supply, climate protection, and competitiveness in this much more unfriendly geopolitical and geo-economic world and which partners we want to work with. What do we need in terms of energy sovereignty, in terms of technology sovereignty, to make Europe fit for 2050? Many answers to this lie in Europe itself In fact, we would have to go back to the very origin of European integration, such as the ECSC. But we will also need sustainable globalised economic relations. This will require great political art.

You said that Europe will continue to be dependent on energy imports. Which countries do we consider to be reliable partners?

When we talk about pure, climate-neutral hydrogen, then geographical proximity and pipeline distance are decisive. This is also the area close to us in terms of political and regulatory matters. So, think of expanding the power grid and building the hydrogen backbone in concentric circles. The EU plus neighbouring countries and regions: the UK, Norway, the Baltic Sea region, the Mediterranean region and, of course, Ukraine after reconstruction. When it comes to derivatives and later liquefied, compressed hydrogen transported by ship, countries further afield such as Chile,

Australia, and South Africa, as well as the Gulf States, are well positioned. In particular, we should look at which potential partners play by the same rules and prefer to rely on democratic states governed by the rule of law. In the renewable-energy world, unlike with fossil fuels, these kinds of advantages can be exploited.

The international order has been thrown into huge disarray in recent years. Global institutions are proving to be incapable of action. Are we in a good position for the new energy architecture you've outlined?

New institutions are needed, but the global situation gives me little reason to be optimistic. In the EU and in Europe, we must promote regional cooperation. Interconnectivity with our neighbours is what it is all about for me. This applies not only to infrastructure, but also to institutions and regulations. Attention is rarely paid to technical standards. If we can't manage to create a level playing field for electricity and hydrogen together with the big markets, then things will be very difficult for Europe. That's why it's very important to continue making progress in shaping global markets with like-minded players. This is the political challenge: preparing for a world that could be much more protectionist and fragmented, with a corresponding negative impact on value-added and supply chains. And at the same time we mustn't do anything to encourage that, but rather swim against the tide by remaining open and cooperative. That is what Europe needs to do now.

This interview was conducted by Claudia Detsch.



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