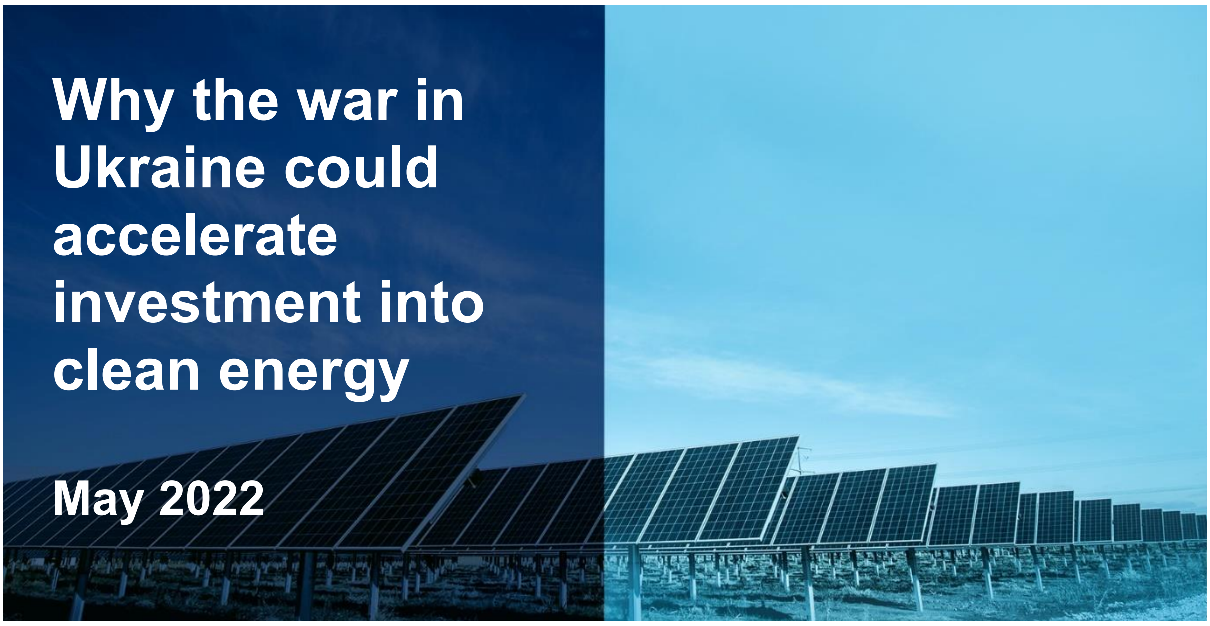

Why the war in Ukraine could accelerate investment into clean energy

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Russia switching off the gas may accelerate the clean energy revolution

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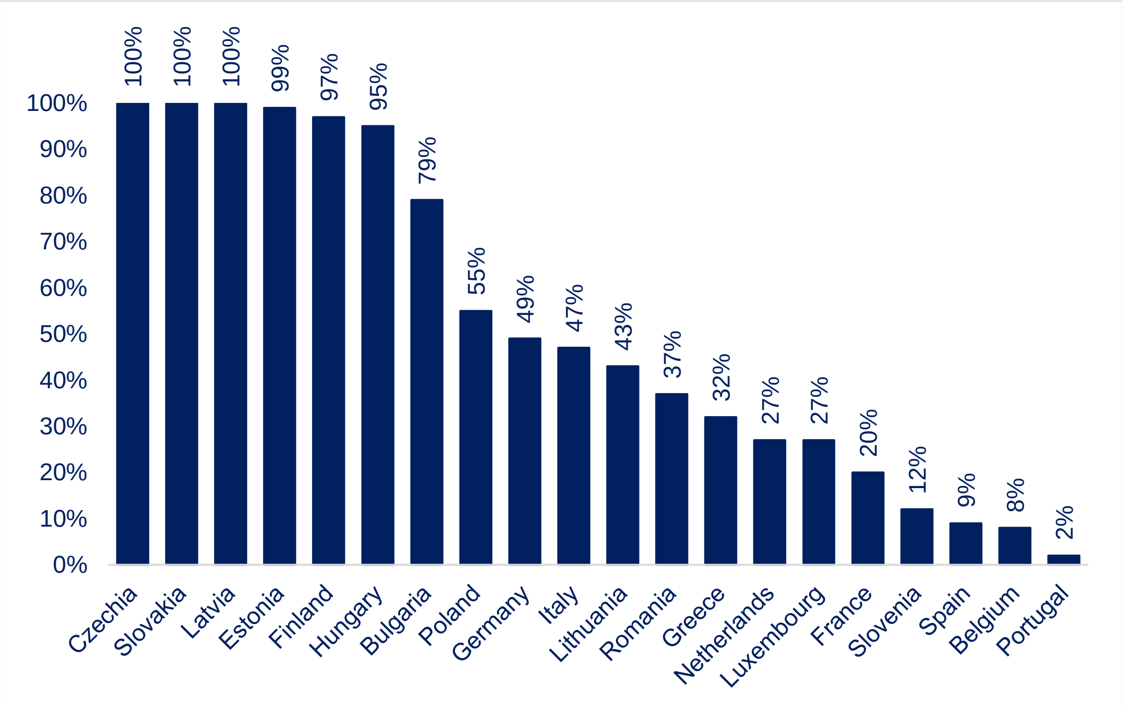
Our fight against climate change is at stake. Russia has invaded Ukraine, messing up Europe's plans to shift to clean energy. Natural gas was supposed to be the cleaner transitional fossil fuel that would give Europe time to shift completely to renewable energy. Unfortunately, many European countries have been heavily reliant on Russian natural gas imports prior to the war (see Figure 1), which has to and is about to change following the political decision to disentangle Europe from Russian gas.

Figure 1: Share of total Russian gas import in the EU, 2019



Source: The Polish Economic Institute; Eurostat.

Here is the challenge. The trouble with renewable energy is it cannot be stored in vast quantities – at least not yet. This means it needs to be used immediately, which is not practical. Something needs to sit between renewable energy and dirtier fossil fuels like coal.

This is where natural gas comes in. Fossil fuel is cleaner than coal, which means it can be used to help reduce carbon emissions while we figure out how to store renewable energy on a mass scale.

Highly efficient combined-cycle gas turbines are cheap and quick to construct compared to coal power stations. They are also easy to fire up quickly when energy is needed at short notice, which means they can provide power when the sun does not shine, or the wind does not blow.

The problem is that a lot of natural gas in Europe comes from Russia. And now Russia is switching off the taps in retaliation to Europe supporting Ukraine's sovereignty. Russia has now cut off Poland and Bulgaria who have both refused to pay their gas bills in Russian roubles, along with the rest of Europe. This has exacerbated energy security concerns across the continent, especially for its largest economy – Germany.

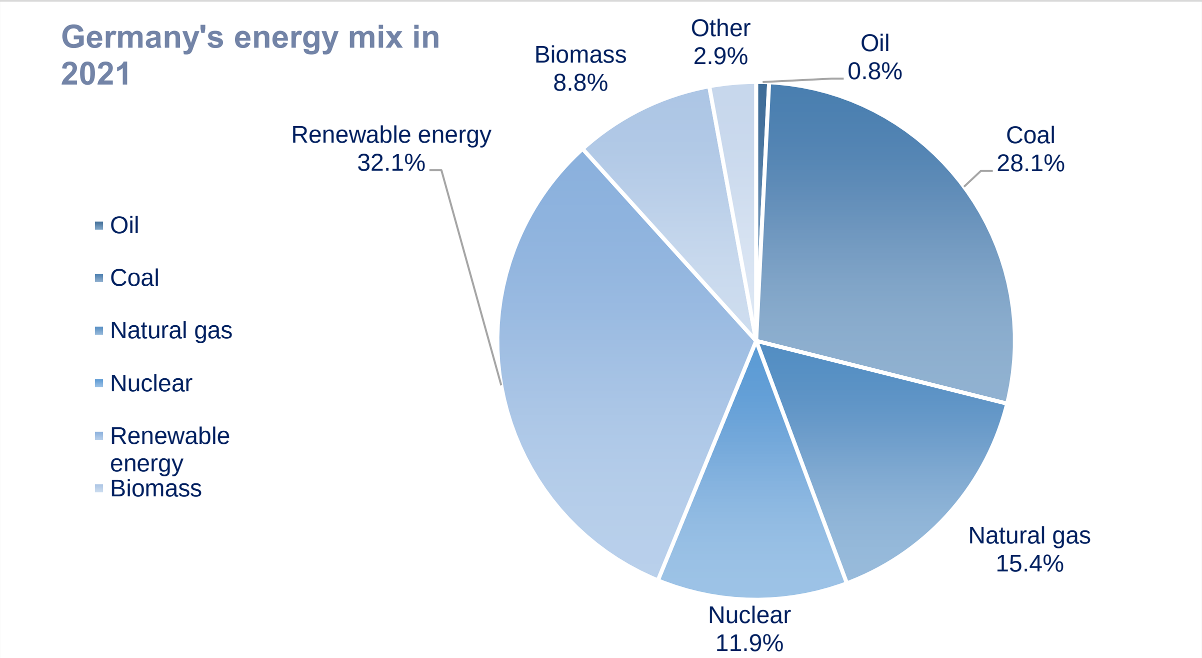
Germany is at risk of being cut off from Russian gas

Germany is in a vulnerable position. In fact, more than half of Germany's natural gas needs come from Russia.[1] The country will either need to change its source of gas, which could take years, or it will have to change its energy mix (see Figure 2). The concern is that this change in energy mix could lead Germany to revert to dirtier fossil fuels like coal, which it still heavily relies on.

However, we believe this is unlikely. Germany remains committed to a clean energy future. It has already invested considerably in renewable energy infrastructure, and it is a signatory to the Paris Climate Accord. In fact, the reverse could happen – we could see Germany accelerate its transition towards clean energy.

All Germany needs is enough innovation and significant funding to make this happen. More importantly, this could also create some very interesting ESG investment opportunities for investors.

Figure 2: Germany's energy mix in 2021



Source: Statistisches Bundesamt; AGEB, January 2022.

How can we innovate and finance our way out of this?

If we can store energy when the wind and sun are strong, then we would solve this issue. The problem is that lithium-ion batteries and pumped hydro are expensive and are challenging to operate as a mass storage solution using current technology.

Better and cheaper battery technology is needed. It would help electricity companies match supply and demand more easily. However, this will require a huge amount of innovation and widescale financing.

Many institutional investors are waiting to make this type of investment

In late 2020, the former governor of the Bank of England Mark Carney called the transition to net-zero as the "greatest commercial opportunity of our age".[2]

[1] Caon, V. (23 March 2022). How did Germany come to be so dependent on Russian gas? Investment Monitor. https://www.investmentmonitor.ai/special-focus/ukraine-crisis/germany-dependent-russian-gas

[2] Colback, L. (18 December 2020). The role of business in climate change. Financial Times. https://www.ft.com/content/7ab0bfb0-b37c-463d-b132-0944b6fe8e8b

Up until now, institutional investors have been hesitant to invest in renewable energy projects. In fact, according to a survey from the international renewable energy agency, only a fifth had invested in renewable energy projects, and just 1% had directly invested into renewables.[3]

However, there is a shift under way as climate change becomes an even greater concern for the future. Many institutional investors have long-term investment horizons. Pension funds and insurance companies for instance, need to match liabilities over the long term. They need returns to be sustainable, which could be at risk from climate change.

There is growing confidence among these investors to invest in renewables thanks to government action. We have seen the unprecedented signing of the Paris Climate Accord. The US, which is one of the most influential nations in the world, has pledged trillions of dollars to decarbonise the US economy. Meanwhile, China has pledged to become carbon neutral by 2060. This will create a huge range of ESG opportunities to invest in. The biggest beneficiaries of this trend will be the financial institutions that support this investment.

Switching off Russian gas could expand the number of clean energy opportunities

The war in Ukraine has been extremely disruptive and has led to some remarkable decisions. Germany has cancelled its second gas pipeline with Russia, despite being highly dependent on Russian gas. Belgium has reconsidered its exit from nuclear energy. Countries like Italy and the United Kingdom are accelerating plans to build new wind turbines.

The threat of losing access to Russian gas has already been planned for, well in advance. Therefore, what we will see is an acceleration of investment into renewable energy. This will not be driven purely by fears of climate change, but also over concerns about energy security because of Russia. A clean energy world may also be a safer world, free from geopolitics and wars over energy resources. It is a more sustainable outcome for humanity.

Investors will need to close the funding gap

Governments have been promoting clean energy projects for years. However, they cannot go it alone. Many are indebted, especially after the pandemic, and they need investors to fill the gap.

This is set to happen because the investment appetite is there, but financial infrastructure is also needed to facilitate this investment. Financial institutions will play a vital role in helping investors gain exposure to clean energy investments. They will provide valuable funding to help countries like Germany innovate their way to a clean energy future that is not dependent on Russian natural gas.

The war in Ukraine is a terrible human tragedy. It has, however, woken up the world and shown just how important energy security has become. Many of those vulnerabilities lie with fossil fuels. By contrast, it has also shown that clean energy is a secure and sustainable source of energy for the future.

[3] IRENA (2020), Mobilising institutional capital for renewable energy, International Renewable Energy Agency, Abu Dhabi.

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