

TALKS ABOUT EUROPE

Europe's Energy Security. In Search of Supply Independence From Russia.



THINKTANK

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Following Russia’s invasion of Ukraine, the issue of Europe’s energy security has become very urgent, as some of the European Union Member States had based their fuel mix predominantly on the supplies of Russian gas and coal. The shock Europe is currently experiencing results primarily in the changed perception of Russia: formerly seen as a trade and business partner, it has now turned into a threat. Consequently, Europe is seeking to cut off economic ties with this country, at least in the strategic industries, such as the energy sector.

In March 2014, the European Union [imposed sanctions on Russia](#) in response to the unlawful annexation of Crimea. They were consistently renewed every six months. On 23 February 2022, a decision was taken to expand the scope of the sanctions after Russian President Vladimir Putin recognised independence of the breakaway Donetsk and Luhansk provinces. As from 24 February 2022, in response to the invasion of Ukraine, [the European Union has launched several packages of new sanctions](#). Unprecedented measures have been taken to significantly weaken Russia’s economic base, cut it off from key technologies and markets, as well as restrict its capabilities to finance the war.

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What is the energy map of Europe? What are our energy sources and who do we buy fuels from? Why is Europe so dependent on oil and gas from Russia? Is it a matter of no alternative or of the price? How and to what extent is Europe transitioning to renewable energy sources and will they make it independent from external suppliers? Will the war in Ukraine accelerate energy transition, or will it rather slow it down? Are we at risk of electricity shortages? Will the war force Europe to keep the existing and build new nuclear power plants? What will Europe's energy situation be in a decade or more?

These were the themes of the on-line debate with: **Sonia Buchholtz**, Director for Energy Transition Financing at the Energy Forum; **Piotr Maciążek**, energy sector expert, author of the book "Stawka większa niż gaz" ("Stakes Larger Than Gas"), and **Izabela Zygmunt**, expert of the European Commission Representation in Poland. The debate was moderated by **Małgorzata Bonikowska**, President of THINKTANK and Member of Team Europe. The event was held on 31 March 2022, as part of the "Talks about Europe" series organised by THINKTANK and the Representation of the European Commission in Poland.



1. How to become independent from Russia?

The Russian Federation is a dominant supplier of gas to the European Union, [providing](#) about 38 percent of the demand. As regards [oil](#), 27 EU Member States import from 3.5 to 4 million barrels daily from Russia. The reasons for that reliance are strictly historical. When the gas industry was only coming into being, the LNG (liquefied natural gas) revolution was yet to come and gas could not be delivered by sea. This option emerged only around 2008-2010. Therefore, pipelines were mostly built to transport natural gas, particularly from the nearest available deposits, such as those in Russia.

On [8 March 2022](#), the European Union proposed a plan to make Europe independent from Russian fossil fuels before 2030. The [REPowerEU](#) concept seeks to diversify gas supplies, speed up the roll-out of renewable gases, as well as boost energy saving. The [EU demand for Russian gas is to be reduced by two thirds](#) by the end of this year. The European Union's decisions in this respect are coupled with the climate policy, which envisages [discontinuation of the use of fossil fuels](#).

Participants' comments

Izabela Zygmunt

A reduction of gas imports from Russia by two thirds means [a decrease by about 100 billion cubic meters](#). According to the calculations of the European Commission, this objective can be achieved with two mechanisms: [diversification of supply sources](#) accounting for about 60 billion cubic meters of natural gas, and replacement of 40 billion cubic meters with energy from renewable sources, mainly solar and wind. We are able to save about 14 billion cubic meters by actions designed to reduce energy demand.

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Piotr Maciążek

It was [during Ronald Reagan's presidency](#) i.e. in the 1980s, that the Soviet Union first threatened to stop gas deliveries. Back then, the predominant view in Germany was that to become more democratic Russia must become a part of the broadly understood economic environment. And given that it was not much advanced technologically, but very rich in natural resources, quite naturally the economic relations started to develop around imports of Russian fuels. "Taming" of Russia by doing business with it became one of the cardinal slogans of the "[Ostpolitik](#)" - Germany's policy towards the East. It goes a few decades back, to the time of the social-democratic chancellor Willy Brandt. The most spectacular promoter of German-Russian economic ties is Gerhard Schroeder, former chancellor and, [until recently, member of the Board of Directors of Rosneft](#), Russia's largest oil company. Today, however, it is entirely clear, in Germany too, that this strategy has failed.

At the same time, the past two decades in the world have seen fundamental changes in energy production. The [LNG](#) and [shale revolution](#) of around 2008 turned the US, previously dependent on deliveries from the Persian Gulf region, into an LNG supplier. LNG terminals, such as that in Świnoujście, started to be built, sea transport has become an alternative to pipeline, and Russian supply sources have come to face new competition. Another world's leading LNG supplier is [Qatar](#). At present, thanks to negotiations with Japan, a part of Qatari gas can be rerouted from East Asia to Europe.

Sonia Buchholtz

[The world continues to be strongly dependent on coal](#) as fuel. People need to be reliably informed about the environmental and health-related effects of the use of this energy source to understand why we have to give it up. Noteworthy, time is not on our side. In Poland, for example, mining of low quality coal [causes diseases and increases mortality rate](#). Furthermore, [outdated equipment](#) in urgent need of replacement is a huge challenge to the Polish heating sector. All these factors make energy transition an absolute must for Poland. We have to modernise our power sector and protect

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our society. It is a costly process, but European Union funds are available to speed up the transition process.

2. The energy crisis. What's next with the European Green Deal?

In autumn 2021, the European Union, for the first time in a long while, had to face a [massive energy and gas crisis](#), caused by three factors: the end of the major restrictions imposed in the wake of the COVID-19 pandemic which halted the economic activity of businesses; fast economic growth in Europe; as well as the rerouting of the majority of liquefied gas deliveries to Asia. Moreover, the Russian energy giant [Gazprom](#) introduced supply restrictions aimed at hiking natural gas prices. This caused a shock for both the European industry and individual consumers. Many economic sectors experienced rapid increase of costs due to a drastic [gas price growth in European energy exchanges](#). The war in Ukraine only magnified the crisis.

The [European Commission outlined a plan for collective European actions](#) to help address the negative effects of price increases and ensure security of supply. The proposals include introducing a minimum 80% gas storage level obligation before winter. Moreover, options were set out for market intervention at the European and national level, to address concerns about continued high energy prices. On 2 February 2022, the [Commission presented the complementary climate delegated act](#) on climate-related taxonomy covering certain activities related to gas and nuclear energy. It has been concluded that as transitory technologies they are in line with the EU's climate and environmental goals if they meet some rigorous criteria.

Participants' comments

Izabela Zygmunt

Since the start of Russia's aggression against Ukraine, questions are being asked about the future of the [European Green Deal](#) and the [Fit for 55](#) package. In my opinion, we will see acceleration, rather than a slow-down of the energy transition. Even today, the European Union is prepared to limit the use of fossil fuels from Russia in a relatively short time, because it has been pursuing its climate policy for over two decades now. Over that time, we have been creating a toolbox of legal and financial instruments, developing technologies, teaching people new ways of generating and saving energy. Without all these prior actions, today we would have much less room for manoeuvre against Russia.

At present, Europe is focused on counteracting the destabilisation caused by the military conflict in our nearest neighbourhood, but it is also still getting to grips with the effects of the pandemic. Let us not forget, however, that, strategically, climate change is the most serious challenge, because it is existential in nature. To stop climate warming at the level of 1.5 degrees C., we have to limit emissions significantly within this decade. If the [European Union's climate target for 2030 is achieved](#), i.e. when the emissions of greenhouse gases are reduced by at least 55% compared with 1990, we will be able to look into the future much more calmly. The transition towards a climate-neutral economy will have been consolidated by then, and the risk of our planet's warming will be much smaller.

Piotr Maciążek

I believe that in the current circumstances an [adjustment of the European Green Deal](#) is necessary, for a number of reasons. First, it was wrong to assume that the use of coal and nuclear energy could be discontinued fast and at the same time. It has led European fuel mixes to experience a shortage of megawatts from stable sources. It is this factor – and not the international situation – that has

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created this „gas hunt“ at power exchanges and driven prices so high. The problem was further aggravated by the shortages of coal and other fossil fuels. In other words, in the autumn of 2021, i.e. even before the war in Ukraine, the German vision of “Energiewende”, based entirely on renewable energy sources (RSE), collapsed. The European Commission realised that it was not possible to transition to an RSE-based system only, because we still need a lot of energy from stable sources. That is exactly why [gas and nuclear energy have been included in the EU Taxonomy](#). This decision may help to manage the price shocks and complement renewable energy sources with some solid low-emission technology based on traditional fuels.

Sonia Buchholtz

The more renewable energy sources in the fuel mix, the less need to use coal and gas. Consistent investment is required in wind energy farms on land and at sea, as well as in photovoltaic energy. Even if Europe is, to some extent, forced to meet its energy needs with transitory fuels, much less of them will be needed, so potential shortages will not be a problem anymore, and the dependency on external supply sources will decrease significantly.

Europe is seeking to encourage activities in the area of research and implementation in new renewable energy technologies. The choices of technologies to be used for the next 10-15 years are made today, so they require a good foresight into the existing barriers and investment to eliminate them. Money is available, for example from the [EU Emissions Trading System](#). We must also focus more on energy efficiency because the cheapest energy is the one we do not consume.

3. Social costs of Europe's energy transition

The [European Green Deal](#) is based on the assumption that the climate and energy transition will leave no one behind and the costs of the entire process will be distributed fairly. The [Energy Union](#) was started in 2015, and its underlying legislation came into force in 2018 as the “[Clean Energy for All Europeans](#)” package. Its key objective is to prevent energy poverty and protect consumers, including small and medium sized enterprises, against adverse effects of the changes. Europeans have been granted new rights and became more empowered participants of the energy market. Now, they have the right to generate their own energy and sell the surplus. [REPowerEU](#), another EU legislative package, contains a whole range of measures that can be taken at the national level in order to protect citizens against high energy prices and their negative consequences.

Participants' comments

Piotr Maciążek

As a result of the energy crisis, for the first time ever the European Commission has lost control over the direction of changes in the climate policy. It has become clear that the transition cannot be based on the top-to-bottom approach if the costs for societies are too high. On the other hand, the war in Ukraine and the rapid changes in the directions of hydrocarbons imports as Europe seeks to cut off the supplies from Russia, puts even more burden on governments and businesses, which will translate into higher prices. The European Commission will have to respond with social shock absorbers. One thing is certain – even after the situation in Ukraine improves, the European Green Deal is never going to be the same. It is not evident anymore that Europe will decarbonise fully, as the process must be based on citizens' acceptance for the changes. If the expectations are too high, social unrest may follow.

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Izabela Zygmunt

I find it hard to agree with the opinion that it is only now that the European Union has taken note of the social dimension of energy transition. The European Commission recommends that funds from the [EU Emissions Trading System](#) be currently used for social mitigation measures, for example partial compensation of high energy bills. ETS is a source of large income for national budgets, including [Polish budget](#) (over PLN 20 billion in 2021). By selling rights to carbon dioxide emissions, governments are able to absorb some of the adverse social effects brought about by the changes.

Sonia Buchholtz

From the economic point of view, diversification of supply is always more costly than buying from a single source. This was exactly the reason for such a high demand for Russian hydrocarbons; coal, oil, and gas sourced in Siberia are cheap and not far to transport. However, after Russia's intervention in Crimea in 2014, the European Union did conclude that the energy dependence on Russia should be curbed. It is thanks to this realisation back then that today we can contemplate supply restrictions, or even an embargo – although these measures will have to be stretched over time.

Conclusions of the debate

- **Until the war in Ukraine, [the share of Russian gas](#) in total gas imports into the European Union was about 38 percent.** Gas is also imported from Norway (16 percent), Algeria (8 percent) and Qatar (5 percent). [Russian oil](#) represents about 27 percent of EU's oil imports, whereas the [other supply sources](#) include Iraq (9 percent), Nigeria, Saudi Arabia (8 percent each), as well as Kazakhstan and Norway (7 percent each).
- The [European Union plans](#) for its Member States to be entirely independent from Russia's fuel deliveries in 10 years. By that time, Europe's energy system should be much more decarbonised, and its transport systems – electrified.
- **Sources of energy will change.** Electricity generation will be based on renewable sources. Heat will still be generated from a mix of fuels, but, at the same time, we will [invest in individual heat pumps](#). [Hydrogen](#) will become an important fuel for industry.
- **In parallel to decarbonisation, the European Union will invest in energy efficiency, i.e. less energy consumption.** [LED light bulbs](#) are a good example of an energy-saving solution, as they consume less electricity than their traditional counterparts.
- **Each EU Member State decides about its energy mix individually.** The [European Union](#) only sets the framework conditions. Consequently, Poland is free to develop its own energy policy. EU members have opted for various approaches, for example, Germany wants to discontinue nuclear energy, whereas France wishes to continue its nuclear power generation.
- **Poland's fuel mix is dominated by [coal \(over 72 percent share in electricity generation\)](#). [Gas represents 6 percent](#). Poland mines 3.8 billion m³ of this fuel, and [imports](#) it from, among others, the United States (3.7 billion m³ of liquefied gas - LNG), Qatar and Norway (2.3 billion m³). As from 1 October 2022, gas from Norway and the North Sea will be transported to Poland via the [Baltic Pipe](#) system. Moreover, [LNG deliveries from the USA will increase as well](#), which should help Poland compensate for the deficit created by**

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[suspending gas deliveries from Russia on 27 April](#) – until then, Russia was the main supplier of natural gas to Poland ([50 percent](#) – [9.9 billion m³ in 2021](#)).

- [Polish oil deposits are small](#), but the [Płock and Gdańsk refineries](#) can process any type of oil, which paves the way for supply source diversification. [Oil from Russia \(67.7 percent of the imports](#) of crude oil and petroleum products) is being replaced by supplies from Saudi Arabia, Iraq, Nigeria, Angola, the United States, the United Kingdom, Norway, Lithuania, and Kazakhstan.
- **The European Union has introduced the so-called EU Taxonomy, i.e. [new reporting obligations for financial institutions](#).** The system requires disclosures on how their operation is linked to the achievement of energy and climate goals. The Taxonomy provides financial incentives, for example, by classifying some types of investment projects as “green”.
- **The primary purpose of decarbonisation is to halt climate change while switching to energy that is unarmful to health, stable, and inexpensive.** The European Union pursues the goal of achieving [a system based in 100 percent on renewable energy sources](#) by the second half of the 21st century.