

PRESS RELEASE

The drift of Poland's energy transition

On top of the economic slowdown in 2020 caused by the COVID-19 pandemic, 2021 was the next year when the cards dealt unexpected circumstances that diverged from the previous years of stability. In Europe, we experienced an energy crisis marked by sharp spikes in gas prices and CO₂ emission costs. The wartime reality of 2022 means even more uncertainty and market volatility with energy security and independence from imported raw materials becoming the most important topics. Poland continues drifting along in the modernisation of the energy sector, as clearly indicated by data collected by Forum Energii in its annual report “Energy Transition in Poland”.



In the report, we summarise the most interesting data about the energy sector to 2021. In Poland, coal again played a major role in the sector. Its share in electricity production continued to exceed 70%. Record-breaking gas prices have reversed the trend of generating energy from this fuel across Europe. Despite the rapidly growing costs of CO₂ emissions, for the first time in years the Polish electricity market was one of the cheapest in the EU. Electricity production amounted to more than 179 TWh, which is the highest in history. Poland assisted its neighbours more intensively in meeting their electricity demand, and net imports to Poland were the lowest in five years at 0.89 TWh. However, these developments resulted in higher CO₂ emissions.

“2021 was another unusual year in the power sector. There was a significant rebound in commodity prices after the pandemic. In our new report, dependence on non-EU gas, oil, and coal supplies acts as a lens. We are not at all immune to price shocks, and manipulative practices by suppliers are turning economic development plans upside down. Renewable energy sources are developing at a snail’s pace. Dependence on the supply of energy resources is ruthlessly exploited by countries such as Russia. This has to change in the coming years,” points out Dr Joanna Maćkowiak-Pandera, president of Forum Energii.

“Coal was the key energy source in Poland in the past, however this resource is depleting, and even a desire to return to the past will not change that. The following months are very important for defining Poland’s energy policy and supporting energy efficiency or even demand reduction. We need to build an energy sector that is resistant to external manipulation, and fuel markets will be expensive and turbulent in the coming years,” Pandera concludes.

In this year’s fifth edition of the report “Energy Transition in Poland”, we have expanded two sections of the data. We pay greater attention to greenhouse gas emissions, showing how much effort Poland needs to make in order to meet its climate targets. We also focus more strongly than in previous editions of the report on energy resources. We look at the directions from which Poland imports coal and natural gas and check which sectors of the economy are most dependent on them.

Compared to previous years, one should notice the faster development of solar energy in Poland. At the end of 2021, 16.7 GW of RES capacity was installed, although the share of RES in energy production is still small.

The pace of renewable energy development is slow and there is a lack of conviction that RES is the way to independence from Russian fuels and an element of Poland's energy security. New investments are too few to ensure energy security in the face of impending shutdowns of conventional power units.

A success in recent years may be the gradual diversification of supplies of raw materials and a reduction of the role of Russia in this area, which is particularly important today in the face of the Russian Federation's attack on Ukraine and the necessity to break relations with the Kremlin on raw materials as soon as possible.

The conclusions of the report indicate one fact: the energy transformation in Poland is proceeding slowly, there are far too few investments, and Poland still cannot define its modernisation model.

Main conclusions:

- Share of coal in electricity generation in 2021 increased and is over 72%.
- Share of renewables fell to about 17% despite record production from these sources (30 TWh).
- In 2021, a record was set in electricity production (179.4 TWh, +14% y/y) and consumption (180.3 TWh, +5.4% y/y).
- Net electricity imports were the lowest in 5 years (at 0.89 TWh).
- Available capacity increased by 3.7 GW (to 53.5 GW).
- Capacity of conventional units has remained stable for years; RES capacity is growing (+4.4 GW y/y), especially photovoltaics (+3.7 GW y/y).
- Despite high CO₂ prices, coal-fired generation was less expensive than natural gas-fired generation, resulting in a record increase in the use of coal-fired capacity and a decrease in the use of natural gas-fired capacity.
- For the first time in years, wholesale electricity prices in Poland were among the lowest in this part of Europe. This resulted in high exports and production.
- The weighted average price of CO₂ in 2021 amounted to 53.13 euro/t CO₂. Poland's revenue from the sale of CO₂ allowances was more than PLN 25 billion in 2021.
- Natural gas prices, and in turn also electricity prices, have risen to record highs across the region.

Contact for media:

Aleksandra Dziadykiewicz, aleksandra.dziadykiewicz@forum-energii.eu

[Energy transition in Poland | 2022 Edition](#)

Elaborate: Marcin Dusiło, Forum Energii

Date of publication: May 2022

All analyses and publications by Forum Energii are freely available and may be reproduced provided that the source and authors are identified.