
Polish
Economic
Institute

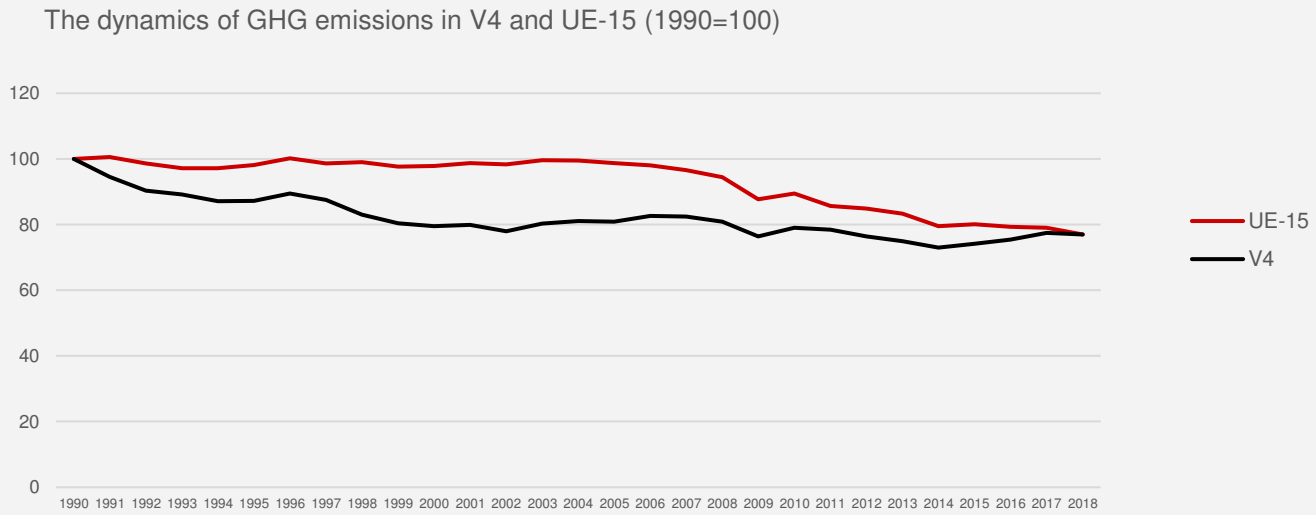
Green transition in CESEE

Where do we stand? – And how have we come here?

June 17th, 2021

The volume of greenhouse gas emission

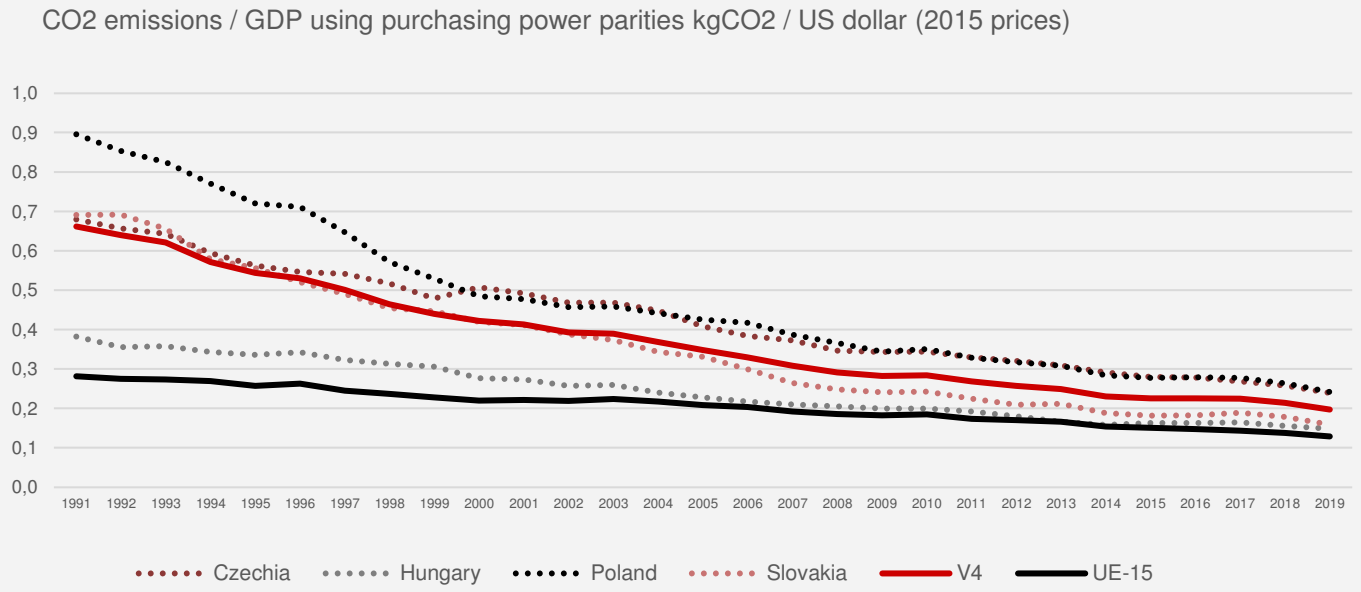
The volume of greenhouse gas emissions in both the EU-15 and V4 countries has decreased by approx. 23% in the last three decades.



Source: PEI own calculation based on Eurostat data.

The volume of greenhouse gas emission

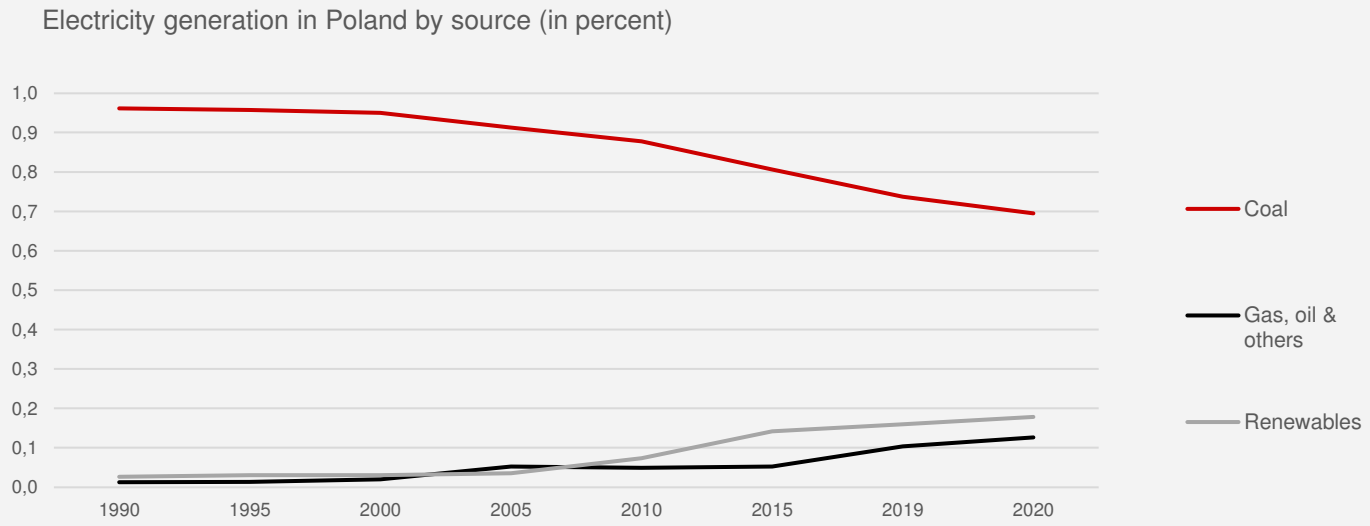
The emissivity of the V4 economies has decreased faster than the EU-15 in the last 30 years and is now over three times lower than in 1991. Nevertheless, it is still 35%. higher than the average emissivity of the EU-15 countries. Poland's emissivity decreased almost fourfold - from 0.9 kg CO2 / USD to 0.24 kg / USD.



Source: PEI own calculations based on IEA data.

Decrease in energy production in Poland

Share of coal in energy production decreased from 96% in 1990 to below 70% in 2020. Coal share in Energy production is 4 percentage points lower than in 2019.



Source: PEI own calculations based on IEA and Energy Forum.

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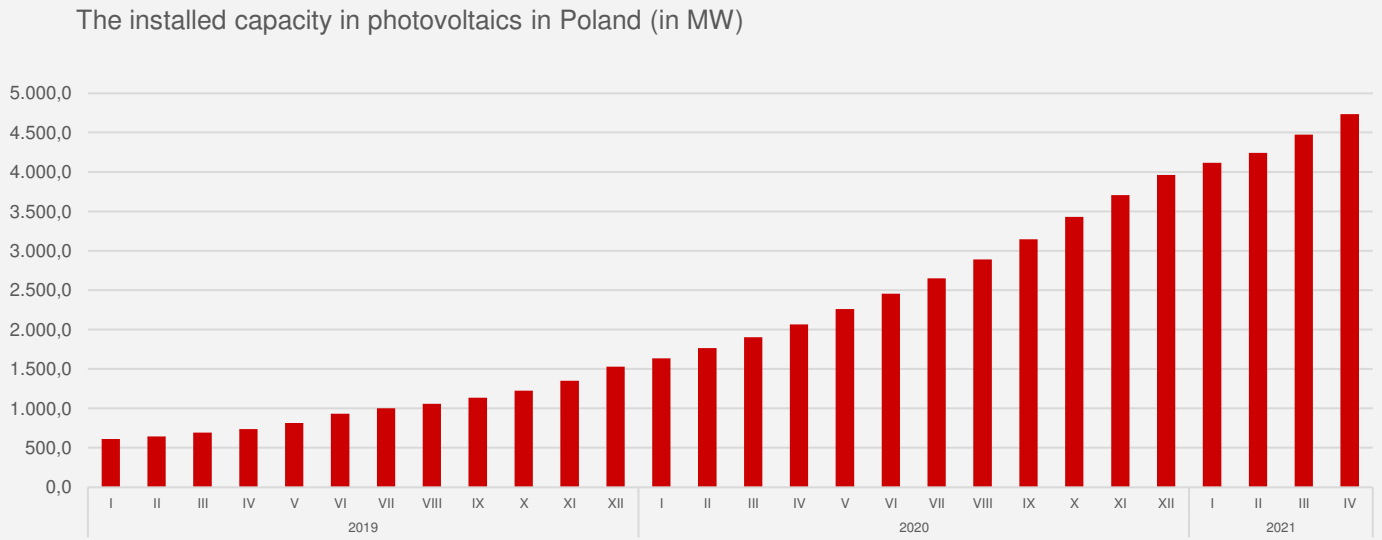
Increase in photovoltaics in Poland

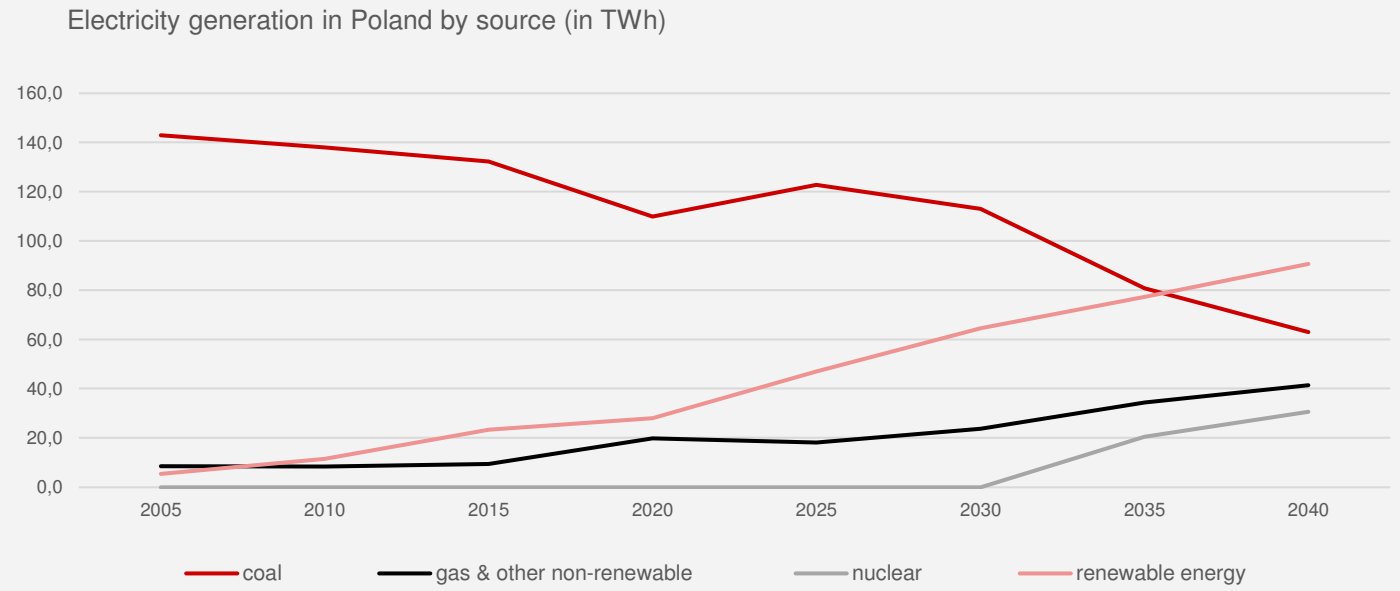
In just over 2 years, the installed capacity in photovoltaics has increased from 600 MW to nearly 5 GW.



Source: ARE.

Poland's energy policy until 2040

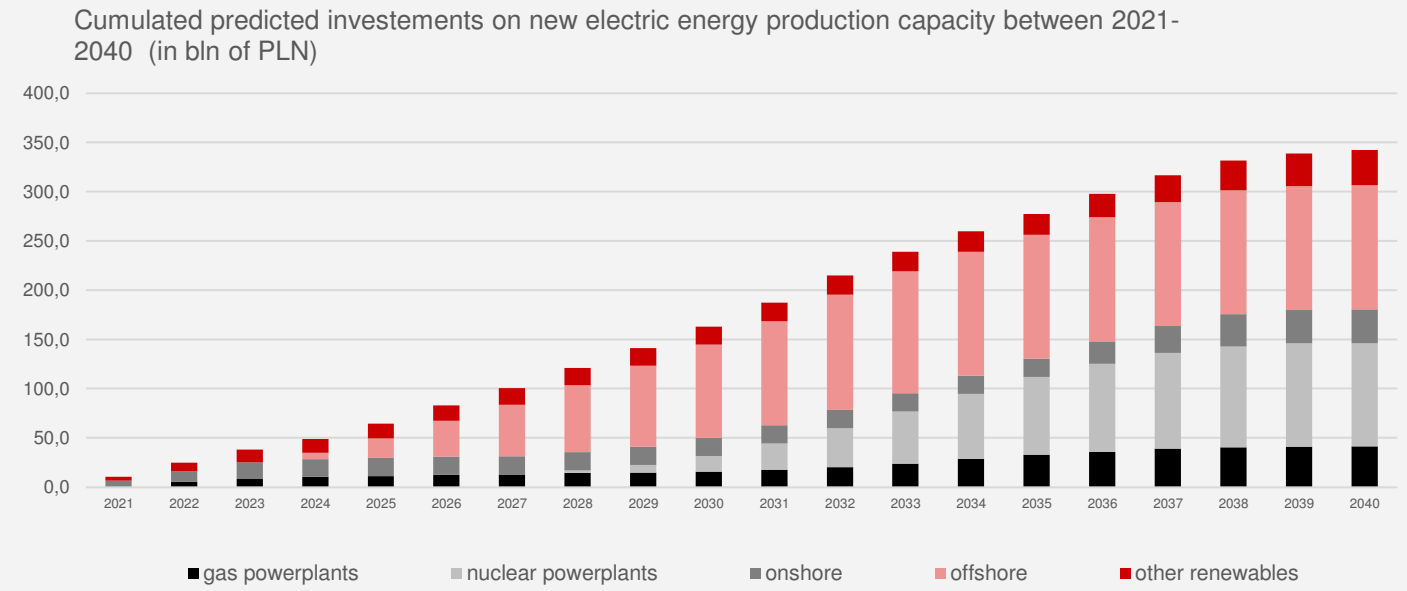
According to the forecasts from PEP 2040, in 2040 there will be a decrease in electricity production from coal to 63 GWh. The emphasis is to be put on obtaining energy from renewable sources, especially offshore and onshore wind energy, nuclear energy and gas as a supplement to the withdrawn coal.



Source: Polish Energy Policy 2040.

Poland's energy policy until 2040

Out of the 1.6 trillion allocated to the Energy Policy until 2040, nearly 350 billion is foreseen for the expansion of generation capacities - mainly nuclear and wind energy.



Source: Polish Energy Policy 2040.

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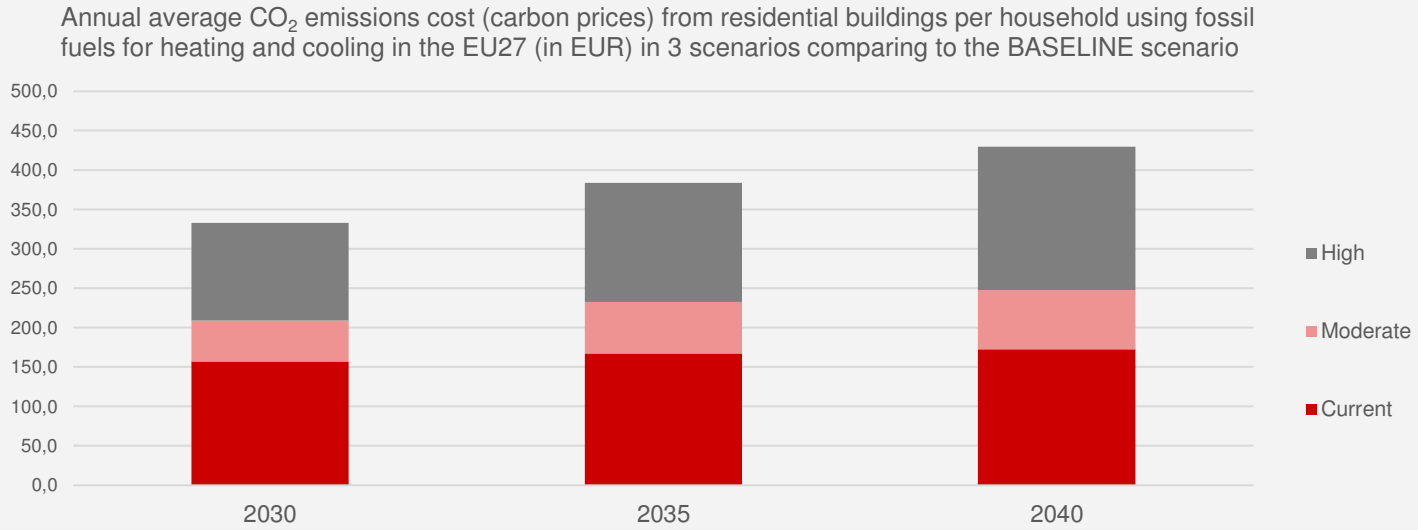
EU's improvement in emission intensity

In 2030-2040, the average cost for households that contribute to CO2 emissions increases slightly from around EUR 160 to EUR 170. In the MODERATE scenario, this growth is faster: around 20% over the same time period, from EUR 210 to EUR 250. The highest increase in cost (by 30%) is in the last scenario. In our calculations, improvement in emission intensity corresponds to a decrease in the number of households that use fossil fuels in their heating systems.



Source: PEI own calculations based on IEA and Energy Forum.

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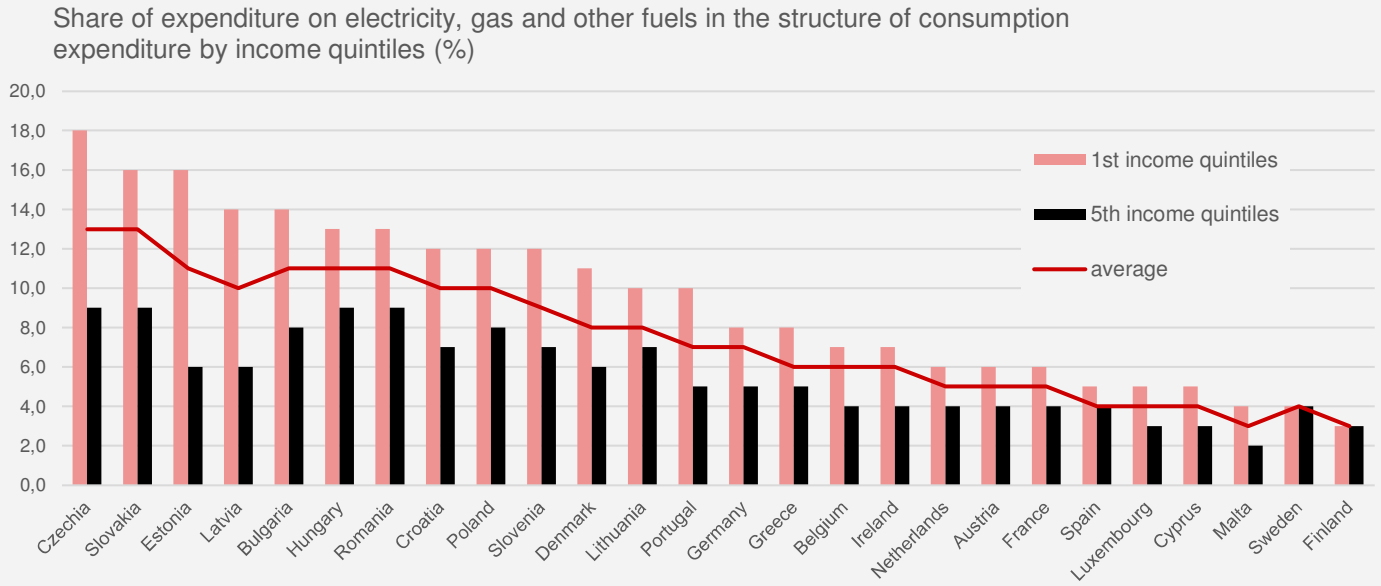
Energy poverty in the European Union

In the EU countries, the higher the average share of expenditure on energy carriers in the structure of household expenditure, the greater the disproportions of these shares in the group of households from the 1st and 5th income quintiles.



Source: PEI own calculations based on Eurostat data.

Thank you

Piotr Arak
Director
Polish Economic Institute
E: piotr.arak@pie.net.pl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