



ANALYSIS

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Poles apart: how Poland can and must get climate-neutral

A transition that requires both commitment and support.

A transition to a zero carbon energy system is inevitable, including in Poland. The question is whether it will be fast enough to be compatible with climate commitments.

The required transition will be challenging and will require higher investment between 2020 and 2050 than a business as usual scenario. For the power system, this will amount to approximately €7.5-18 billion more, based on current technology costs

The transition will also require Poland to embrace planning for net zero emissions and make smarter investments. Between 2005 and 2016, Poland invested €18.8 billion into the coal industry, whilst only €5.42 billion was invested in renewable energies.

Implementing a transition to net zero emissions by 2050 at the latest would generate direct savings of up to €55 billion for Poland thanks to lower overall energy use. These savings are additional to the expected €200 billion or more in savings from avoided health costs and environmental damage. Fossil fuel pollution furthermore causes over 1800 deaths in Poland a year.

Poland has access to considerable resources to invest in the transition. Over the first 7 months of 2019 alone, European Emissions Trading System receipts have amounted to almost €1.5 billion. Poland also qualifies for over 40% of the EU Modernisation Fund and is the largest recipient of cohesion funding. However, proposed cuts to cohesion policy will limit the potential impact of EU funds and the funds continue to lack controls on climate spending.

Climate change is already having global impacts, including in Poland. The Ministry for Environment has estimated that costs of damage from climate change have escalated from €12 billion between 2001 and 2010, to €48 billion between 2011 and 2030.

Therefore:

- Poland can reduce the overall costs of the transition significantly by ending all use of national and EU funds to subsidise the fossil fuel sector, including the coal industry
- The EU should commit to reaching net zero emissions - in WWF's view, this should be by 2040. This would send a clear signal and all Member States should reflect this in their long-term investment and national climate and energy plans
- Poland should earmark spending of the European Emissions Trading system allowances, to ensure that emissions trading system revenues are used to support climate action.
- The EU should not cut structural and cohesion funding to fossil fuel-dependent sectors and regions. However, it must also put in place greater controls over spending to ensure it is consistent with the most cost-effective and socially fair pathway to a clean and sustainable energy system.

THE NET ZERO DISCUSSION IN POLAND

□ Poland, alongside Hungary, Estonia and Czechia, blocked consensus on setting an EU-wide 2050 climate neutrality target at the June European Council

□ Polish Prime Minister, Mateusz Morawiecki, has not ruled out signing up in future to a European 2050 net-zero emission target. He has, however, argued that Poland would need financial support guarantees before agreeing to it. At the June European Council, he stated, "Poland is one of those countries that must first have a very detailed compensation package. We must know how much we can get for modernisation."¹

□ Comments from Heads of Government suggest that Czechia, Estonia and Hungary share Poland's concerns. They are therefore likely to support a net-zero target, if concerns about

adequate financial support – for all countries facing specific challenges – are addressed

□ Even if financial support is guaranteed, Poland might move on a net zero target only after its general election on October 13th. This may mean no decision at European Council until December

THE COST OF THE TRANSITION TO A SUSTAINABLE ECONOMY AND CLEAN ENERGY SYSTEM IN POLAND

Poland faces one of the most challenging energy transitions in Europe. Its greenhouse gas emissions are three times higher in relation to GDP and 18% higher per capita than the EU average.² The Polish Undersecretary of State for Energy has indicated that Poland would eventually agree to net zero, provided there are guarantees of further support from the EU. His claim that around €210 billion³ from the EU is needed to support the Polish energy transition to 2050 is however, inflated.⁴

Whilst it is clear some financial support is needed to enable the transition and ensure that the most cost-effective and socially fair transition is implemented, the actual figures are likely to be much lower than claimed by Poland itself. Investment costs are also likely to be offset in the long-term by aggregate savings from energy efficiency, job creation and avoided climate damages.

An accelerated energy transition will involve higher capital investment, but will also bring about overall energy cost savings, and create more jobs compared to a business as usual pathway (see Box 1)⁵. The total cost of transforming the electricity supply and demand system would not exceed €82 billion (excl. grid investments), while up to €65 billion would be needed in a business as usual scenario.

The cited costs of the energy transition also do not account for the avoided costs of failing to address climate change. According to the Polish Ministry of Environment, climate change generated losses from

damage of PLN 54 billion (over €12 billion) between 2001 and 2010 alone. An additional PLN 205 billion (€48.2 billion) more in losses is projected from 2011 to 2030⁶.

The indirect health costs of pollution from fossil fuels will also be avoided by a shift to clean energy. PM2.5 air pollution in Poland is estimated to contribute to 44,500 premature deaths annually⁷ which is mostly the result of air pollution from domestic heating systems fuelled with coal, wood and waste. Pollution from coal plants alone was estimated to have caused 22,900 premature deaths across Europe in 2013, at a cost of up to €62 billion, a figure which excludes the costs of non-fatal diseases⁸. 1860 of these deaths were in Poland⁹ and it is estimated that health and environmental deterioration costs from the coal industry were PLN 31 billion (€7.3 billion¹⁰) in 2016.

The savings generated by the accelerated transition to net-zero emissions could therefore amount to well-over €100 billion for Poland by mid-century. However, the initial financial costs of the transition are higher, and efforts will be needed to ensure the transition is paid for in the most equitable way. Furthermore, increasing the share of renewables in the energy mix will also reduce Poland's reliance on non-EU imports of energy, thereby increasing energy security. Hard coal imports exceeded 18 million tonnes in 2018 whilst more than 70% of gas is imported (of which over 65% is still from Russia¹¹). Poland is also almost fully dependent on oil imports.

BOX 1: “2050 Poland for Generations – our future our choice”, BCG and WWF Poland (2019)

In this study, two scenarios for the Polish energy transition were compared: a baseline, continuing the current policy path, versus ‘For Generations’, in which 2050 emissions are cut by 31% more than the baseline, and renewable energies make up 75% of the energy mix, with a potential higher share due to technological breakthroughs.

Difference between Baseline and ‘For Generations’ Scenario

Cost of transition (CAPEX):
PLN 32-76 bn higher (€7.5-17.9 bn, or 20-27%) in ‘For Generations’

Electricity price:
6-11% higher in ‘For Generations’

Total electricity costs:

PLN 105-157 billion (€24-32 bn) in savings in ‘For Generations’

The cost of the transition is higher in the more ambitious, ‘For Generations’ scenario, but the avoided costs of climate change are unaccounted for and would offset completely any costs of the transition.

The higher electricity cost is also offset by energy efficiency increases (electricity consumption decreases by 10% versus the baseline) and the result is likely to be even more positive with a higher expected carbon price.

Jobs will be created in new sectors and the ‘For Generations’ Scenario indicates that the net effect will be an overall increase in employment. For example, in the building renovation sector (as the transition will also require thermal efficiency improvement in buildings), the BCG study indicates that a pathway to zero emissions by 2050 would result in employment in building energy efficiency alone increasing by 24,100 jobs compared to the baseline scenario.

EU FUNDS AND THEIR CONTRIBUTION TO CLIMATE ACTION IN POLAND

Since accession in 2004 Poland has received over €100 billion net from the EU. It is a net recipient of eu funds, and annually receives around €10-12 billion¹² from the EU.

Poland will receive over €86 billion in European structural fund support alone between 2014 and 2020. Spending so far has focused on network infrastructure¹³, notably on roads and railways. 23% of funds (around €24 billion) have been reported as allocated to the low carbon economy, environmental protection and resource efficiency, as well as climate change adaptation and risk prevention.

However, a CAN Europe analysis from september 2018 calculated that only 6.1% of cohesion policy funding for 2014-2020 (7.6% for the eu as a whole)

was planned for the purposes of achieving the 2020 EU climate and energy targets.

In addition, Poland has received revenues from the European emissions trading system of over €2 billion in 2018 and receipts until July this year are already almost €1.5 billion¹⁴. This revenue stream is likely to grow over the 2021-2030 trading period, thanks to a steadily increasing carbon price.

However, the controls over how these funds are spent are limited and there is evidence that funds have been directed at counterproductive activities, as set out in the following section.

USE OF EU FUNDS IN WAYS THAT UNDERMINE A JUST TRANSITION

Poland has not only foregone opportunities to invest in clean energies, it has also invested in ways that actively undermine the transition to a clean energy system. Subsidies to the fossil fuel industry cost Polish tax payers and lock-in polluting industries, increasing the overall cost of the transition by delaying action and generating stranded assets. Diverting direct and indirect fossil fuel subsidies to purposes consistent with a net zero-emissions pathway would minimise the costs of the energy transition and ensure it is as swift and fair as possible.

For a transition to be truly just, it must be clean and sustainable. Whereas maintaining a polluting fossil fuel industry will continue to incur the negative impacts of a monoindustrial and extractive economy, as well as failing to address climate change, which together will impact most the poorest and most vulnerable in society - a clean and just energy transition to a low carbon and resilient economy will boost prosperity and drive net job creation in decent, sustainable jobs¹⁵.

In spite of all this, Poland has consistently funnelled billions of Euros into the fossil fuel industry:

□ Between 2005 and 2016, the coal power industry in Poland received over around PLN 80 billion (€18.8 billion).

□ In 2016, the coal mining sector received over €2 billion.

□ Meanwhile, renewable energies (excluding co-firing of coal and biomass) saw a total of PLN 23.4 billion PLN (€5.42 billion) between 2005 and 2016¹⁶.

EU funds are also used to support the locking-in of the fossil fuel industry. Operational Programmes for the European Structural Funds include the modernisation of fossil fuel plants through co-firing coal and biomass; thereby locking-in this fossil fuel for years to come¹⁷. It is unlikely such spending is consistent with an optimal and cost-effective pathway to zero-emissions.

Simultaneously the vast majority of state aid from article 10c EU ETS allowances is invested in solid fuel power plants. The national investment plan for Poland for the period from 2014 to 2020 indicates that 82% of the article 10c funds (projected at €7.4 billion) are to be allocated to fossil fuel installations¹⁸.

Around 250 million allowances (70%) have been used under Article 10c since 2013. It is unclear whether corresponding efficiency and modernisation investments have been made in exchange for the free allowances.

Revenues from the European Emissions Trading System have also been used to support multiple “Clean Air” (pl. Czyste Powietrze) programmes in the building sector. It is doubtful these are truly consistent with long term climate targets as the scale of thermal insulation might not be sufficient and at present, new (5th i.e. highest class) coal boilers can be installed under the programme. Natural gas is furthermore envisaged as the main future heating source, which is also not consistent with climate targets¹⁹.

Finally, EU Funds have also supported the development of fossil fuel capacities and technologies in the “clean coal” development programmes. Nearly €11 million were provided to coal research projects in 2018 as part of the European Research Fund for Coal and Steel, a legacy of the European Coal and Steel Community.

OUTLOOK FOR 2021-2027 AND BEYOND

Poland is decarbonising, but it is not yet on a path to decarbonise fast enough. The decline of coal mining in the Polish coal heartland is recognised to be inevitable due to its economic unprofitability and

difficult geological situation. By mid-century, on a purely economic basis, only the most efficient coking coal mines would remain, with no place left for hard coal mining used in power and heat generation, even if no phase-out consistent with a just transition were to be actively implemented²⁰.

The most efficient and most beneficial transition pathway from an economic and employment perspective will involve ensuring realistic expectations and a comprehensive modernisation of the fuel and energy system towards low-emission technologies for heat and electricity generation.

Whether Poland can decarbonise fast enough to meet international commitments, and whether it can in a socially just way will depend on political and financial commitment at both EU and national levels.

Poland is facing a significant cut in its receipts from the EU regional development and cohesion policy. Under the current budget, Poland will receive 23% less between 2021 and 2027 compared to 2014 to 2020. A similar cut is observed for Hungary, the Czech Republic and Estonia. As pointed out by Polish deputy foreign minister Szymański, rather than a detrimental impact on economic growth, the cut is more likely to “hit harder the other pillars of sustainable development.”²¹

Moreover, whilst the European Commission’s proposal introduced tighter controls on cohesion policy funds, including a general exclusion of fossil fuels from funding, there is a risk such controls will be watered down in trilogues as the member states in the Council have pushed for a ‘laundry list’ of exemptions to the general exclusion in their partial negotiating mandate²². Whilst this would be limited to 1% of total programme allocation under the investment for jobs and growth goal for the member states concerned, it could amount to around €600 million for Poland to spend largely on natural gas investments.

Poland will also continue to receive funds from revenues generated by the auctioning of EU emissions trading allowances, which could far exceed €2 billion per year (including the modernisation fund), or €20 billion over the next trading period, depending on the carbon price. How it spends these funds will be a crucial factor in determining whether it accelerates or derails the energy transition towards a net-zero emissions society.

A positive sign is that Poland did not announce it would use the allocation of allowances under article 10C by the deadline of 30th June 2019, indicating that it may have decided not to allocate them for free to power generators as it has previously. This is perhaps in response to changes under article 10C which have introduced stricter criteria for investments, and is in line with recommendations from Sandbag about optimising EU emissions trading scheme funds²³. Poland can now either auction the allowances, or (if announced by September 30th 2019), it can transfer them to the

modernisation fund. However, if Poland chooses to auction the allowances, it can in theory use the revenues for any purpose, including the modernisation of fossil fuel energy and heating systems, such as the Baltic pipe or in extensions of the ‘clean air’ programmes.

If instead it chooses to invest the revenues into the modernisation fund, solid fossil fuels will be excluded. The fund also enjoys the oversight of an investment committee which will assess whether projects fall within the area of transition ‘priority projects’ and qualify for simpler funding procedures. At present, the fund could be worth over €3 billion for Poland.

On the other hand, Poland has also signalled an intention to continue financing fossil fuels through its deployment of capacity mechanisms. The European Commission approved a capacity mechanism in April 2019, which would support ‘high-efficiency cogeneration’ for up to 15 years. In its first auction for 2021, €1.2 billion were awarded for over 22GW, of which at least 80% went to coal and lignite²⁴. The capacity mechanism, which is now being challenged by tempo energy, will cost over €1 billion annually.

Whilst it is increasingly recognised that Poland has great potential for renewable energy²⁵, “the competitiveness of such projects in general depends on the local market conditions including competition amongst energy providers, policy stability, the regulatory framework and access to capital”²⁶. The current situation in Poland does not favour renewable energy development as much as it could if a clear regulatory framework and commitment to net zero was set in place. For instance, whilst in Spain prices of solar auctions are as low as €40/MWh, in Poland they can be up to €96/MWh²⁷.

At present, the Polish regulatory environment does not set Poland on a path for net zero emissions by 2050. The draft national energy and climate plan lacks ambition, foreseeing more or less a maintenance of current coal capacity in GW between 2021 and 2030. The development of the long-term strategy has also been delayed and has not yet been publicly consulted upon.

PROPOSED WAY FORWARD

The current proposal on MFF includes a significant cut to cohesion funding, relative to the previous financial period. In order to provide adequate support to member states undergoing the transition, the EU member states should rather avoid cutting the cohesion policy funding, and should instead consider providing further support for the transition; on the condition that all Member States accept an EU-wide net zero 2050 target and

directly reflect this in their NECP and long-term strategies, as mandated under the Governance Regulation²⁸.

Poland must also immediately cease all use of EU funding for fossil fuel installations and phase out all other fossil fuel subsidies, based on independent assessment of the most cost-effective timeline. Should further support be provided for the transition, its scope must be clearly defined and should rest on the idea that a just energy transition requires long-term transition planning based on participative, open and inclusive consultation and economic needs analysis^{29 30}.

The protection of the environment and addressing climate change do not contradict economic and social progress. Recognising this is crucial to ensure a swift, cost-effective and just transition protecting the most vulnerable and leaving no-one behind.

This analysis was developed jointly by WWF European Policy Office and WWF Poland.

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