CLEAN AIR TASK FORCE

FACTSHEET

Industrial decarbonisation in Poland: Key challenges identified through stakeholder interviews

Poland has a strong industrial base, but companies face growing challenges in maintaining competitiveness while reducing emissions. High energy costs, international competition and uncertainty over future investment conditions are making industrial decarbonisation increasingly difficult. The Polish government's plans to set out an Industrial Strategy, as outlined in the National Energy and Climate Plan (NECP), provides an opportunity to address these challenges and support the transition to a competitive, lower-emission industry.

To better understand the barriers to industrial decarbonisation, Clean Air Task Force (CATF) conducted 16 interviews with experts from industry, business associations, NGOs and financial institutions between 15 June and 1 September 2026. The interviewees included Polish and EU-level stakeholders across energy-intensive industries, including chemicals, cement, lime, copper, aluminium and steel, as well as finance and energy infrastructure. These findings reflect stakeholder perspectives and should not be interpreted as CATF's policy positions or recommendations, nor attributed to any individual or organisation. Five recurring themes emerged from these discussions, highlighting the challenges companies face in moving decarbonisation projects forward. Building on these findings, CATF will develop evidence-based policy recommendations to support Poland's preparation and implementation of national strategies for industrial decarbonisation.

Current market conditions are weakening companies' capacity to invest in the transition.

High energy and carbon costs, combined with international competition, are putting pressure on industrial margins and limiting companies' capacity to invest in modernisation and decarbonisation. While some companies can finance these investments through internal resources or private capital, others face substantial financing gaps, particularly for capital-intensive deep decarbonisation projects. Financing gaps can also arise at the project-development stage, when companies need resources to deliver the necessary work to underpin commercial financing. These financing gaps risk slowing industrial decarbonisation and continued underinvestment risks weakening Polish industry's competitiveness.

Deeper emissions reductions require a business case that reaches beyond capital expenditure.

Many industrial facilities have already adopted energy-efficiency measures that both reduce emissions and lower production costs. Deeper decarbonisation measures, however, often don't pay off and companies cannot always pass the higher production costs on to customers, particularly in globally traded commodity markets. For energy-intensive industries, investment decisions for decarbonisation projects are often underpinned by the total cost of reliable low-carbon electricity delivered to production sites, including network charges, rather than wholesale prices alone. Investment decisions are further complicated by uncertainty over future carbon prices: while higher carbon prices can strengthen the case for lower-emission investments by increasing the cost of emitting CO_2, they can also raise the costs of existing production, reducing the financial resources available for investment. As a result, some projects will require operating support to become financially viable.

Infrastructure constraints and permitting delays can prevent projects from moving forward.

Companies need clear timelines and transparent infrastructure planning before committing to decarbonisation investments. Grid-connection constraints can limit electrification and, carbon capture projects face similar uncertainty if CO_2 transport and storage infrastructure are not developed in time. Lengthy permitting processes often undermine project cost assumptions and disrupt delivery timelines. As a result, technological readiness and available financing do not always lead to project implementation.

Stakeholders highlighted the untapped potential of energy-industrial clusters to better coordinate industrial development and energy infrastructure planning, particularly in areas with a high concentration of industrial sites.[1] However, realising this potential would require greater clarity over responsibilities for infrastructure delivery, capacity availability, and the allocation of development risks that individual companies cannot bear alone. Early engagement with host municipalities could also help identify opportunities for these investments to strengthen local energy infrastructure and bring wider economic benefits to surrounding communities.

Unclear government responsibilities can undermine confidence in industrial decarbonisation.

Interviewees noted that fragmented governmental responsibilities hinder companies in identifying the appropriate institutions to address barriers to industrial decarbonisation spanning multiple policy domains. This ambiguity makes it harder for companies looking to decarbonise and modernise their operations to anticipate policy decisions and plan the long-term investments that depend on coordinated government action. While individual institutions may engage constructively with industry, unclear responsibilities and inadequate coordination between them leave companies uncertain whether policies will be implemented in time, and, as a result, they defer investments.

1 The term "energy-industrial cluster" refers to the coordinated development of industrial facilities and energy infrastructure within a particular area, aimed at supporting industrial decarbonisation, improving access to competitive electricity and enabling more efficient use of shared infrastructure. While Polish law already recognises "energy clusters" under the Renewable Energy Sources Act, their current framework is limited to distribution networks below 110 kV. Extending this framework to 110 kV networks could facilitate closer integration with energy-intensive industrial activities and deliver benefits for both industry and the electricity system.

Industrial sectors face different decarbonisation challenges and opportunities.

Interviews underscored that industrial sectors differ widely in their economic roles and decarbonisation requirements. The chemical industry demonstrates how interdependencies between sectors can impact broader economic activities, such as food production. The copper industry in contrast could benefit from the increased demand from electricity grid expansion and electrification. The lime sector faces a different challenge – it's significant process emissions cannot be addressed by electrification alone making access to shared CO_2 transport and storage critical. These examples show that decarbonisation strategies must therefore account for each sector's unique technical, economic, and infrastructure conditions.

Implications for Poland's Industrial Strategy.

Poland needs to move from political ambition to concrete action to build a clean and competitive industrial base. The interviews reveal a common challenge across industrial sectors: Poland's industrial sector continues to face regulatory, financial and infrastructure barriers that complicate decarbonisation investments while companies keep facing pressure to reduce emissions and remain competitive amid international rivalry. Even technically feasible projects face major obstacles because of uncertainty in regulatory and financial support. Continued delays in decarbonisation investment could further weaken the competitiveness of Polish industry and put domestic industrial capacity at risk.

The planned Industrial Strategy offers an opportunity to address these challenges more coherently. Its value will ultimately depend not only on the priorities it sets, but also on whether it helps create the conditions for companies to move forward with investments that preserve industrial capacity while reducing emissions. The presented findings from these interviews offer a starting point for further dialogue between policymakers, industry, NGOs and other stakeholders on how Poland can maintain a competitive industrial base while advancing its decarbonisation ambitions.



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