NO ONE LEFT BEHIND IN THE ENERGY TRANSITION

JOBS, SKILLS AND SOCIAL PROTECTION IN POLAND AND CENTRAL-EASTERN EUROPE

ABOUT THE PROJECT

This policy brief builds on insights from the EUROMOBI Conference, part of the EU funded EuroMobi project (Horizon Europe, Grant No. 101232335), which explores mobility, demographic change, and socio-economic resilience in Europe.

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The transition to clean energy in Europe is not just an environmental priority but a social one. Decarbonization can exacerbate existing inequalities if proactive measures are not taken. Central and Eastern Europe (CEE), particularly Poland, faces acute challenges related to high household energy costs, legacies of energy-intensive industries, and communities at risk from the decline of coal and other high-emission sectors. At the same time, the green transition offers opportunities to create new jobs and improve living standards if policies invest in people's skills and social protection, rather than only in technology development. This policy brief, based on EuroMobi Session V ("Green transformations", 5 June 2025) held in the context of Poland's Presidency of the Council of the European Union, argues that integrating social policy with climate action is essential for an inclusive energy transition. Tools like the EU's Social Climate Fund and Just Transition Fund, a proposed "Clean Industrial Deal" and the upcoming EU Anti-Poverty Strategy can cushion vulnerable households and upskill workers. Poland's case is of household energy use devoted to heating, with many homes still relying on inefficient coal-based heating. Rising carbon prices and fuel costs hit low-income families the hardest without targeted support, deepening energy poverty. Regions like Silesia and Eastern Wielkopolska—historically dependent on coal—require massive reskilling and job-creation programmes to avoid economic decline as mines and plants close. New green industries (renewables, retrofitting, clean tech) could more than compensate, with an estimated 100,000 green jobs in Poland by 2040. Seizing this opportunity will require strategic investment in skills training, digital literacy, and social protections so that industrial workers and youth entering the labour market can participate in the clean economy.

> „A successful clean energy transition must put people at its core—ensuring that climate action reduces emissions without increasing inequality"

Poland can champion a "just transition" agenda across Europe, aligning climate initiatives with the European Pillar of Social Rights (which declares access to energy as an essential service) and leveraging EU frameworks such as the Green Deal and the Fit for 55 package. This brief outlines the context of socio-economic vulnerabilities in CEE, highlights key insights for energy- and transport-poor households, coal-region workers, workers in energy-intensive industries and their supply chains, young people and vocational learners, small and medium-sized enterprises in transition regions, and municipalities responsible for housing, heating and mobility services, and provides concrete policy recommendations at the EU, national, and local levels.

KEY MESSAGES

The clean energy transition must be socially just, or it risks deepening inequalities—especially in Poland and across Central and Eastern Europe.
Energy poverty is a growing risk, as rising costs disproportionately affect low-income households reliant on inefficient, coal-based heating.
A "just transition" requires investing in people—through reskilling, social protection, and inclusive labour policies—not only in technology.
Coal-dependent regions like Silesia must undergo targeted economic transformation to avoid job losses and regional decline.
The transition offers major opportunities, including up to 100,000 green jobs by 2040, if supported by strategic policy and EU funding.

CONTEXT AND CHALLENGE

Central and Eastern European (CEE) countries face a dual challenge: decarbonising economies that are both carbon- and energy-intensive and socio-economically vulnerable. Many CEE economies, including Poland and Bulgaria, reflect a legacy of coal-dependent industries and inefficient infrastructure, which implies that emissions cuts often require transformations in both energy production and end-use, such as modernising generation assets and insulating older housing stock (European Commission, 2023).

Without careful management, these changes can hit lower-income communities hardest: energy poverty is primarily driven by low income, a high share of household expenditure devoted to energy, and poor energy performance of buildings, leaving households highly exposed to price spikes and unable to finance efficiency upgrades (European Commission; European Parliament, 2023).

KEY MESSAGES

Poland has high household reliance on heating, with over 60% of energy use devoted to space heating—making energy costs a major burden for households.

Continued dependence on solid fuels, especially coal, exposes households to both price volatility and energy poverty risks.

Affordability challenges will intensify unless short-term income support is combined with long-term investments in energy-efficient housing and cleaner heating systems.

The transition threatens entire regional economies reliant on coal and heavy industry, with large-scale job losses likely as mines and high-emission sectors decline.

Lessons from Poland's coal sector restructuring in the 1990s show that poorly managed transitions can lead to lasting social and economic hardship.

Proactive policies—focused on reskilling, job creation, and social protection—are essential to avoid repeating past transition failures.

Poland exemplifies these challenges. Space heating accounts for around 62.6% of household energy use, reflecting the centrality of heating needs in household budgets (Statistics Poland, 2026). This is closely linked to the housing stock and heating technologies: in Poland's household space-heating mix, solid fuels account for ~39.4%, and coal remains a significant component (Statistics Poland, 2026).

Eurostat data are consistent with this picture: in 2023, solid fossil fuels accounted for ~20.6% of Polish household energy consumption, and solid fuels were the largest single source of household space heating (Eurostat, 2025).

Against this backdrop, affordability risks can rise during periods of elevated energy prices unless targeted income support is coupled with building and heating upgrades that structurally lower energy needs (European Commission, 2023; European Parliament, 2023).

Beyond households, entire regional economies in CEE are at risk in the transition. Many rely on high-emission industries (coal mining, lignite power generation, heavy manufacturing) that will contract as climate policies and market conditions tighten. In Poland, coal historically employed around 400,000 workers across ~70 mines, and in 2024, coal still generated ~57% of electricity; analysts cited by Reuters forecast that most remaining mines could close within a decade, underlining the scale of labour-market disruption (Hillsdon, 2025). Similar structural challenges appear elsewhere in CEE, including Estonia's oil shale region (Ida-Viru) and Czech coal regions supported by the EU's just transition architecture (European Commission, 2022a, 2022b).

The social consequences of unmanaged industrial decline can be severe. Poland's experience in the 1990s—when state support for coal abruptly ended, and mines closed, often leaving workers with limited practical support—illustrates why reskilling, job creation, and social protection need to be designed before closures accelerate (Hillsdon, 2025).

KEY CHALLENGES

Energy policy cannot be viewed in isolation from social policy. The European experience shows two parallel approaches to energy poverty, which must now be brought together. On one hand, climate and energy ministries emphasise technical and market solutions, e.g. mass building renovations, efficiency incentives, clean energy subsidies, and short-term energy price relief measures. On the other hand, social policy traditionally treats issues such as heating and electricity as part of the welfare domain, e.g., through income support, energy allowances, or public services for low-income households. Both approaches are crucial, but siloed. A just energy transition demands a coordinated strategy: upgrading infrastructure and access to clean energy while directly supporting vulnerable people through the transition period. Crucially, the transition comes with upfront costs, and if these costs are not fairly shared, public support for climate action will erode. Investing in decarbonization without social measures can deepen public distrust, as people perceive climate policies as burdensome or elitist. The session concluded that while most Europeans support the idea of a green transition, “many of them cannot be a part of it because they cannot afford it”. This risk is acute in CEE countries with lower incomes and thinner safety nets. Effective “social cushioning”: income support, subsidies, retraining programs, and other aid, is not a secondary add-on, but a precondition for success. The transition must be attractive and achievable for working-class people, which requires honest communication about benefits and trade-offs, and visible assistance to those who need it. Misinformation can otherwise fill the void. For instance, pro-fossil fuel voices sometimes exploit the hardships of poorer households “as a reason to delay the transition”.

The European Union has recognised the need to marry its climate agenda with social solidarity. Under the European Green Deal and the Fit for 55 climate package umbrella, new instruments are being implemented to ensure fairness in the transition.

Social Climate Fund (SCF)

due to start in 2026, which will recycle revenues from carbon pricing to support vulnerable households’ energy and transport costs. The SCF is explicitly designed to compensate those who might otherwise be worst hit by higher fuel bills, funding everything from direct income support to home retrofits and clean mobility in low-income communities.

Just Transition Fund (JTF)

a €19+ billion fund targeted at regions reliant on coal and other polluting industries. The JTF aims to diversify local economies and reskill workers through territorial plans drawn up with local stakeholders.

European Commission EU Anti-Poverty Strategy

expected in early 2026, aims to tackle poverty in all forms, including energy poverty. Alongside the European Pillar of Social Rights, it underlines that access to essential services such as energy and transport is a fundamental right and calls for support for those unable to afford them.

POLICY RECOMMENDATIONS

EU Level policymakers and institutions

Operationalise the Social Climate Fund (SCF) quickly and target it to vulnerability. Prioritise (i) targeted energy rebates/social tariffs, (ii) fully funded heating upgrades and deep retrofits for low-income households, and (iii) rural/remote mobility support where alternatives to car use are limited.

Make distributional impacts a design requirement in climate law. Introduce a mandatory social impact assessment for major climate legislation (Fit for 55 follow-ups and beyond), so distributional effects by income, tenure, region, and vulnerability are identified early and mitigated by policy design.

Accelerate and simplify the Just Transition Fund (JTF). Reduce administrative burdens and expand technical assistance so CEE regions can finalise and implement Territorial Just Transition Plans faster—especially for worker retraining, SME development, and local economic diversification. Consider top-ups if carbon revenues exceed expectations and extend support to additional at-risk sectors (e.g., energy-intensive manufacturing regions).

Create an EU "Just Transition Scoreboard" with transparent outcomes.

Track workers retrained, jobs created, SMEs supported, and energy poverty/transport poverty indicators in beneficiary regions to strengthen accountability and learning.

Launch a Clean Industrial Deal with enforceable social conditions. Complement the Green Deal with incentives for industrial modernisation paired with workforce retention and upskilling. Expand cross-border learning (e.g., Green Skills Exchange via ERASMUS+/EIT) and support EU value chains (batteries, renewable components, renovation). Attach conditions: workforce training plans, job-quality standards, and community engagement.

Put energy and transport poverty at the core of the EU Anti-Poverty Strategy. Adopt EU-wide monitoring (building on Eurostat indicators), set a headline target aligned with the European Pillar of Social Rights Action Plan, and require/encourage Member States to include "affordable energy and transport for all" chapters in NECPs and social inclusion strategies.

National and regional governments (CEE, with Poland as a leading case)

Treat every climate policy as a social policy—and build in compensation by default. Use welfare systems (minimum income schemes, housing benefits) as delivery channels for targeted support when energy prices rise, ensuring vulnerable households are protected during policy shifts (e.g., carbon pricing).

Integrate climate action with social protection and labour market policy. Break down silos across energy, environment, labour, and social affairs ministries. Establish a cross-ministerial Climate and Inclusion Task Force / National Observatory to align decarbonisation with poverty reduction and employment strategy.

Scale up skills and training tied to actual vacancies ("jobs-first reskilling"). Expand vocational and technical pathways for energy-efficient construction/retrofit delivery, renewables, environmental engineering, and digital skills. Create Green Skills Centres of Excellence with employers, universities, and training providers. Incentivise firms to retrain rather than lay off (co-financed training, tax credits, wage subsidies).

Design retraining that works for mid-career and older workers. Offer modular, accessible pathways (micro-credentials, rapid certification), employer-linked apprenticeships, recognition of prior learning, and transition supports that reduce income risk during training.

Strengthen energy affordability safety nets as a transition instrument. Implement or expand targeted energy vouchers/social tariffs that scale with carbon price impacts. In Poland, consider a temporary thermal allowance for high-burden households until structural improvements (retrofits/heating upgrades) reduce bills.

Target renovations and clean heating upgrades to the poorest first. Move beyond "first come, first served." Use social targeting so the most vulnerable households can access near-100% grant coverage for insulation and heating replacement, plus application support—so decarbonisation delivers affordability and health benefits where needs are greatest.

Use the current political window (Poland/CEE) to anchor just transition commitments. Champion a Clean Industrial Deal and keep energy affordability central in EU debates. Lock in multi-year funding for reskilling and regional diversification through budget cycles and national development plans, and incorporate social progress metrics into climate planning.

POLICY RECOMMENDATIONS

1 Local governments and front-line implementers (municipalities, local services, job centres)

Resource local social services to identify and address energy poverty. Provide stable budgets and clear referral pathways so households in arrears or in underheated homes are rapidly connected to national/EU support. Deploy “last-mile” support via energy advisors. Fund municipal energy advisors / specialised social workers to conduct home visits, provide tailored guidance, and help households navigate retrofit and heating-upgrade schemes (including low-cost measures when needed). Build local labour pipelines into the green economy. Coordinate job centres with incoming green investment (retrofit contractors, renewable energy developers, clean-tech firms) to create training-to-job pathways and prioritise local hiring. Institutionalise participation to build trust and improve delivery. Convene structured local dialogues with energy providers, employers, unions, and community groups. Pair investments with visible early wins (warm homes, lower bills, jobs) to sustain public support and reduce backlash risk.

2 Researchers and academia (evidence, evaluation, and design support)

- Produce granular, policy-ready evidence on who is affected. Map worker displacement risk (skills/age/location), energy burden and heating-cost exposure, and regional vulnerability profiles to support targeting and sequencing.
- Evaluate what works in reskilling and transition support. Compare program designs (apprenticeships vs classroom, employer-linked vs public training, modular credentials) and publish outcomes (completion, placement, earnings, job quality).
- Audit delivery and equity outcomes for accountability. Provide independent assessment of SCF/JTF and national plans to verify funds reach intended beneficiaries and recommend course correction—tracking energy poverty outcomes and employment effects in transition regions.

ADDITIONAL RESOURCES

Resources for deeper understanding and further exploration

FOR POLICYMAKERS

Europe's Green Transition: A Fund Under Pressure
https://www.socialeurope.eu/europes-green-transition-a-fund-under-pressure

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feantsa.org
https://www.feantsa.org/resources/energy-poverty-and-unfit-housing-in-poland

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Society Watch: Poland tries to learn lesson from the past as it seeks to power past coal | Reuters
https://www.reuters.com/sustainability/climate-energy/society-watch-poland-tries-learn-lesson-past-it-seeks-power-past-coal-2025-06-09/

Access to essential services - European Commission
https://employment-social-affairs.ec.europa.eu/policies-and-activities/social-protection-social-inclusion/addressing-poverty-and-supporting-social-inclusion/access-essential-services_en

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Europe's Energy Divide: Why the Green Transition Risks Leaving Half the Continent Behind
https://www.socialeurope.eu/europes-energy-divide-why-the-green-transition-risks-leaving-half-the-continent-behind

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"Inability to keep home adequately warm" and "Arrears on utility bills"...
https://www.researchgate.net/figure/Inability-to-keep-home-adequately-warm-and-Arrears-on-utility-bills-in-Poland-in_fig3_340387744

Polish Presidency of the EU Council – PARLIAMENTARY DIMENSION / 1 January – 30 June 2025
https://parleu2025.pl/en/about-the-presidency/

DISCLAIMERS

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