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Comparative Research Network:

## Powering Citizens Report

# *Energy Democracy and Energy Poverty in Europe: Focus on the Western Balkans*

## Country-Specific Results - Germany

Dr Kamila Franz and Maxine Salmon–Cottreau, CRN



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# Germany's NECP and Alignment with EU Climate Policy

## Germany's NECP (2021–2030)

**The National Energy and Climate Plan (NECP)** is Germany's official roadmap under EU climate governance (updated in 2024).

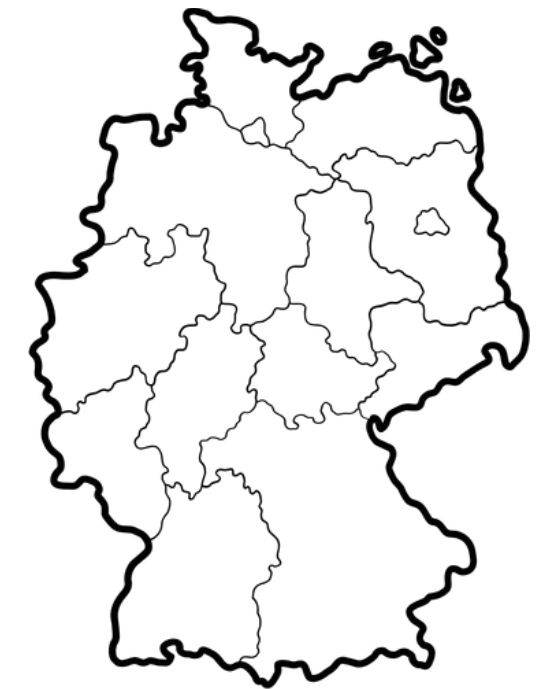
**It aligns with EU frameworks:** European Green Deal, Fit for 55 package, Renewable Energy Directive, Energy Efficiency Directive

**It is implemented through Germany's national policy framework, including:**

- Climate Protection Act (KSG) and Climate Protection Programme 2023
- Renewable Energy Act (EEG) and Building Energy Act (GEG)

**Key German NECP priorities:**

- Climate neutrality by 2045
- Rapid renewables expansion (80% renewable electricity by 2030)
- Coal phase-out pathway (ideally 2030; legally 2038)



# Germany's NECP Goals vs Where We Are Today

## NECP 2030 Targets

### Greenhouse Gas Reductions

Reduce net GHG emissions by  $\geq 65\%$  by **2030** (vs 1990)

### Renewables in Electricity

Achieve **~80%** renewable share of gross electricity consumption

### Renewables in Final Energy

Target around **40–42.5%** renewables in gross final energy consumption

### Energy Efficiency

Reduce final energy consumption through **buildings, industry, and transport improvements**

# Germany's NECP Goals vs Where We Are Today

## Where Germany is today

### **Electricity Sector (2024) → 80% target**

- Renewables now supply ~54–55% of electricity consumption
  - Wind: ~32%
  - Solar: ~15%

### **Total Final Energy Consumption (2023) → goal of 40%+**

- Renewables share ~22% of total final energy

### **Primary Energy Mix**

- Fossil fuels still dominant: ~75–80% of total energy use
- Renewables ~20–22%, nuclear phased out

### **Emissions Reductions → target ≥ 65%**

- Germany has reduced GHG emissions by ~57% since 1990

# Germany's NECP Goals vs Where We Are Today

## Gaps

**Electricity:** on the right track, but still needs acceleration

**Total energy renewables:** significantly below NECP targets

**Heating & transport:** lagging, slowing overall transition

**Energy efficiency:** progress uneven across housing and industry

**Electricity transition is making solid progress.**

**Overall energy transition (heat, transport, buildings) and energy poverty reduction still lag behind targets.**



# What Drives Energy Poverty in Germany

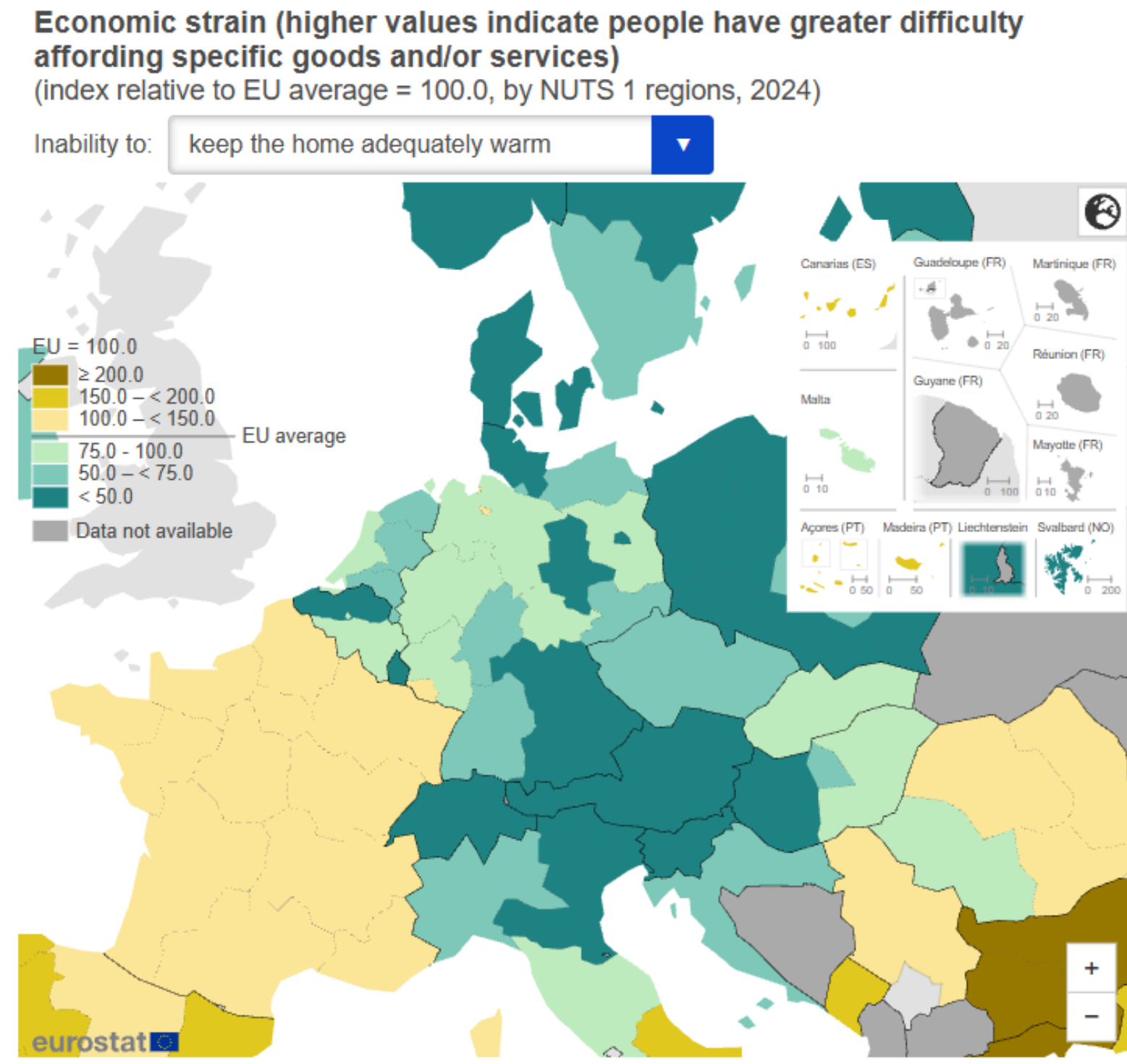
## Vulnerable groups

- Low-income renters
- Single parents
- Elderly households
- Households in older buildings with poor insulation

**6.5 million households\* are affected by energy poverty.**

**\*Average German household size =2  
1 in 10 households cannot afford sufficient heating during winter months.**

**53% households rent their homes**



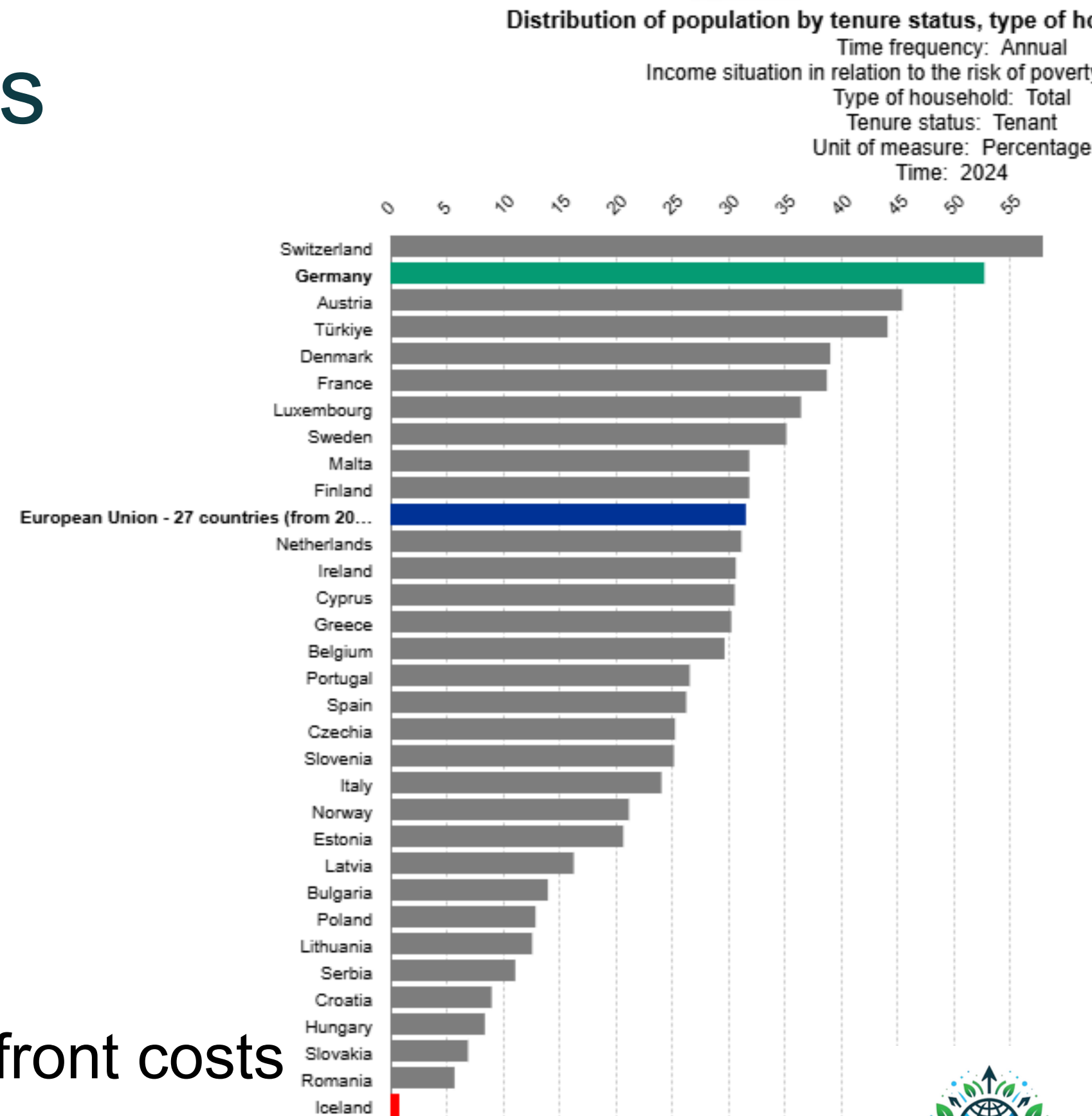
# Germany's Policy Responses

## Policy instruments:

- Energy price relief during crisis periods
- Building renovation funding schemes
- Support for efficiency upgrades
- Renewables expansion policies
- Consumer protection and support measures

## Key gaps:

- Bureaucracy and slow implementation
- Uneven access to subsidies
- Low-income households struggle with upfront costs
- Renters depend on landlords for renovations



# Energy Democracy in Germany

## Positive: Germany has a strong energy democracy tradition

- 900 energy cooperatives that alone produce around 8 TWh of electricity annually.
- 1 750 energy communities
- community solar initiatives produced 6.4 billion kWh (6.4 TWh) in 2024
- citizen ownership models, in 2019, significant 30.2% share of renewable electricity generation capacity.

## But participation is not equal

- Homeowners benefit most
- Renters are often excluded
- Grid and permitting delays limit expansion
- Complex rules discourage small actors

# What Changed in the Past Years

## Major developments

- Renewables reached ~60% of electricity generation in 2024 (record high; strong wind + solar growth).
- Energy prices stabilised after the 2022 crisis, but affordability remains a key concern.
- Heating transition debate intensified: heat pumps + district heating became major political issues.
- Energy poverty gained visibility as a justice topic, especially affecting renters and low-income households.
- Around 4.2 million people struggled to pay energy bills in 2024 (~5% of population).

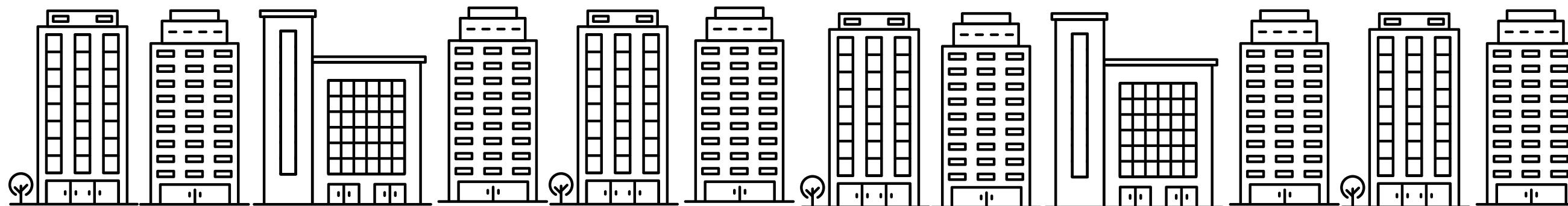
## More focus on:

- Affordability & social fairness
- Renters (split incentive problem)
- Regional inequality

# Key challenges for Germany

## The bottlenecks of the German transition

- Buildings sector is the core challenge
- Heating transition is slow and politically contested
- Renters face limited participation and limited control over the energy choices
- Bureaucracy slows local energy projects
- Energy poverty risks undermining trust in climate policy



# What Germany should prioritize

## 1. Renovation-first strategy

- prioritize low-income housing and social housing

## 2. Enable participation for renters

- simplify access to balcony PV and tenant energy communities

## 3. Strengthen energy communities

- support cooperatives, citizen PV, municipal ownership

## 4. Reduce bureaucracy

- faster permits, grid connections, local approvals

## 5. Combine climate + social policy

- energy poverty must be treated as part of climate transition

# References

## Main Source

- Comparative Research Network et al. (2025). Energy Democracy and Energy Poverty in Europe: Focus on the Western Balkans. Powering Citizens Research Report.

## Additional Sources

- Clean Energy Wire (CLEW): Factsheets & reporting on German energy transition
- Umweltbundesamt (UBA): German renewables and emissions statistics
- Volker Quaschnig: renewable electricity statistics + energy transition analysis
- Scientists for Future Germany: climate justice and transition framing
- European Commission: NECP governance framework and EU energy policy packages (Fit for 55, Green Deal)
- Eurostat Interactive Housing Report



# Thank You

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