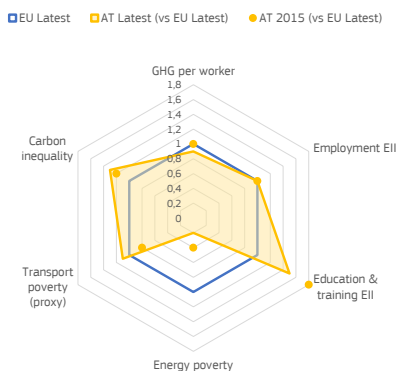


This Annex monitors Austria’s progress in ensuring a fair transition towards climate neutrality and environmental sustainability, notably for workers and households in vulnerable situations. To ensure a fair green transition in line with the Council Recommendation⁽⁷⁷⁾, upskilling and reskilling measures will promote smooth labour market transitions and the implementation of REPowerEU, notably through Austria’s ‘Just Transition – Aktionsplan Aus- und Weiterbildung’ published in January 2023. Labour shortages in Austria’s construction sector are high relative to other EU Member States. Austria’s recovery and resilience plan (RRP) outlines crucial reforms and investments for a fair green transition⁽⁷⁸⁾, such as significant investments in e-mobility, charging infrastructure and rail infrastructure, complementing the territorial just transition plans and actions supported by the European Social Fund Plus (ESF+).

Graph A8.1: **Fair transition challenges in Austria**



Source: Eurostat, EMPL-JRC GD-AMEDI/AMEDI+ projects and World Inequality Database (see Table A8.1).

Employment in Austria’s industries most affected by the transition remains stable, but labour shortages may create bottlenecks.

The greenhouse gas (GHG) emissions intensity of Austria’s workforce fell from 13.2 to 12.5 tonnes per worker between 2015 and 2021, and is below the EU average of 13.7 tonnes (see Graph A8.1 and Table A8.1). Employment in Austria’s energy-intensive industries (EII) represented an almost

stable share of 2.8% of total employment in 2021 (in 2020: 2.9% vs 3.1% in the EU). Among the sectors with the highest GHG emissions are the paper and print industry, chemical and pharmaceutical production, and the metal industry⁽⁷⁹⁾. Employment in mining and quarrying has decreased by 3.3% since 2015 (to around 6 000 workers). In the regions covered by the Just Transition Fund (JTF), more than 71 000 employees work in these affected sectors. Total jobs in the environmental goods and services sector grew by 15.8% (to 183 500) in 2015-2019 (EU: +8.3%), reaching 4% of total employment, above the EU average of 2.2% (see Annex 9 for circular jobs specifically). However, the job vacancy rate in construction, a key sector for the green transition, was among the highest in the EU (6.1% vs 3.6% in EU) in 2021. Shortages are also recorded in manufacturing, IT and engineering. The main reasons include skills mismatches and people lacking qualifications or holding ones no longer in demand. In the context of its ‘Masterplan “green jobs”’, Austria introduced a green job platform to help match labour demand and supply in the green sector.

Upskilling and reskilling is relatively prevalent in Austria’s most affected sectors, but participation has slightly decreased.

Skills are key for smooth labour market transitions and preserving jobs in transforming sectors. In energy-intensive industries, workers’ participation in education and training fell from 15.7% in 2015 to 13.8% in 2021, but remains above the EU average (8.9%). In Austria, 35% of citizens believe they do not have the necessary skills to contribute to the green transition (EU: 38%)⁽⁸⁰⁾. Specific investments under the RRP and the JTF provide training to help reskill workers in affected industries. In addition, 3.9% of ESF+ funding contributes to green skills and jobs. For instance, the ‘CORA’ project, co-financed by the ESF, provides computer training for women to improve the skills needed for green related jobs and to meet the demands of the labour market.

Energy poverty indicators stood well below EU averages, but low-income groups were particularly affected even before 2022. The

⁽⁷⁷⁾ Council Recommendation of 16 June 2022 on ensuring a fair transition towards climate neutrality (2022/C 243/04) covers employment, skills, tax-benefit and social protection systems, essential services and housing.

⁽⁷⁸⁾ See 2022 Country Report (Annex 6).

⁽⁷⁹⁾ See 2022 [Territorialer Plan für einen gerechten Übergang Österreich 2021–2027](#).

⁽⁸⁰⁾ Special Eurobarometer 527. Fairness perceptions of the green transition (May – June 2022).



Table A8.1: Key indicators for a fair transition in Austria

Indicator	Description	AT 2015	AT Latest	EU Latest
GHG per worker	Greenhouse gas emissions per worker - CO2 equivalent tonnes	13,2	12.5 (2021)	13.7 (2021)
Employment EI	Employment share in energy-intensive industries, including mining and quarrying (NACE B), chemicals (C20), minerals (C23), metals (C24), automotive (C29) - %	2,9	2.9 (2020)	3 (2020)
Education & training EI	Adult participation in education and training (last 4 weeks) in energy-intensive industries - %	15,7	13.8 (2021)	8.9 (2021)
Energy poverty	Share of the total population living in a household unable to keep its home adequately warm - %	2,6	1.7 (2021)	6.9 (2021)
Transport poverty (proxy)	Estimated share of the AROP population that spends over 6% of expenditure on fuels for personal transport - %	30,5	40.8 (2023)	37.1 (2023)
Carbon inequality	Average emissions per capita of top 10% of emitters vs bottom 50% of emitters	6,3	6.3 (2020)	5 (2020)

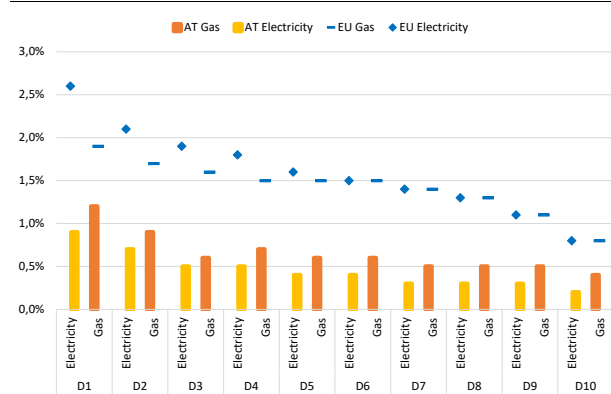
Source: Eurostat (env_ac_ainah_r2, nama_10_a64_e, ilc_mdcs01), EU Labour Force Survey (break in time series in 2021), EMPL-JRC GD-AMEDI/AMEDI+ projects and World Inequality Database (WID).

share of the population unable to keep their homes adequately warm fell from 2.6% in 2015 to 1.7% in 2021⁽⁸¹⁾. In particular, 4.6% of the population at risk of poverty were affected in 2021 (EU: 16.4% in 2021), and 1.5% of lower middle-income households (in deciles 4-5) in 2021 (EU: 8.2% in 2021). Before the energy price hikes, an estimated 14.8% of the total population and 41.4% of the (expenditure-based) at-risk-of-poverty (AROP) population had residential expenditure budget shares on electricity, gas and other fuels⁽⁸²⁾ above 10% of their household budget (still below the estimated EU average of 26.9% and 48.2%, respectively). Despite the small percentages reported, Austria addresses energy poverty by applying a leverage factor in the energy efficiency obligation scheme under the federal energy efficiency law. Savings achieved in low-income households are leveraged with a factor of 1.5, which renders this segment more interesting for the obligated energy supplier⁽⁸³⁾.

The increased energy prices in 2021-2023 negatively affected households' budgets, in particular for low-income groups. As a result of energy price changes during the August 2021 to January 2023 period relative to the 18 months prior (cf. Annex 7), in the absence of policy support and behavioural responses, the share of individuals living in households which spend more than 10% of their budget on residential energy would have increased by 11.3 percentage points (pps) for the whole population and by 14.6 pps among the (expenditure-based) AROP population, slightly less than the EU-level increases (16.4 pps

and 19.1 pps, respectively)⁽⁸⁴⁾. The expenditure shares on residential energy of low and lower-middle income groups would have increased the most, for both gas and electricity, as shown in Graph A8.2. Among the (expenditure-based) AROP population, the share of individuals living in households with budget shares for private transport fuels⁽⁸⁵⁾ above 6% would have increased more than the EU average (10.4 pps vs 5.3 pps), reaching 40.8% in January 2023 (EU: 37.9%) due to the increase in transport fuel prices. Introduced under the RRP, the Renewable Heating Law will create the framework conditions for replacing outdated fossil-fuelled heating systems with renewable energy or district heating.

Graph A8.2: Distributional impacts of energy prices due to rising energy expenditure (2021-2023)



Mean change of energy expenditure as a percentage (%) of total expenditure per income decile (D) due to observed price changes (August 2021 - January 2023 relative to the 18 months prior), excl. policy support and behavioural responses.

Source: EMPL-JRC GD-AMEDI/AMEDI+ projects, based on Household Budget Survey 2015 and Eurostat inflation data for CP0451 and CP0452.

Access to public transport displays an urban-rural divide, while carbon footprints differ significantly. Citizens perceive public transport to

⁽⁸¹⁾ Energy poverty is a multi-dimensional concept. The indicator used focuses on an outcome of energy poverty. Further indicators are available at the [Energy Poverty Advisory Hub](#).

⁽⁸²⁾ Products defined according to the European Classification of Individual Consumption according to Purpose (ECOICOP): CP045.

⁽⁸³⁾ Reported in the national long term renovation strategy.

⁽⁸⁴⁾ [EMPL-JRC GD-AMEDI/AMEDI+](#) ; see details in the related technical brief.

⁽⁸⁵⁾ ECOICOP: CP0722.

be relatively available (59% vs 55% in the EU), affordable (68% vs 54% in the EU) and of good quality (72% vs 60% in the EU). As regards these perceptions, rural areas in Austria perform worse than urban areas, yet still better when compared to rural areas in the EU overall ⁽⁸⁶⁾. The average carbon footprint of the top 10% of emitters among the population in Austria is about 6.3 times that of the bottom 50% (see Graph A8.1) - the third-highest 'carbon inequality' in the EU (EU average: 5.0 times). In Austria, the average levels of air pollution in 2020 stood below the EU average (9.9 vs 11.2 µg/m PM2.5), with 53% of the population living in regions exposed to critical levels of air pollution ⁽⁸⁷⁾, leading to significant health impacts, in particular on vulnerable groups, and 3 181 premature deaths annually ⁽⁸⁸⁾.

⁽⁸⁶⁾ EU (rural): 46%, 48%, 56% respectively. Special Eurobarometer 527.

⁽⁸⁷⁾ Double the recommendations in the WHO Air Quality Guidelines (annual exposure of 5µg/m³)

⁽⁸⁸⁾ [EEA- Air Quality Health Risk Assessment](#)