BRIEFING

EU progress on climate action –
How are the Member States doing?

European Parliament

Climate action in Austria

Latest state of play

The EU's binding climate and energy legislation for 2030 requires Member States to adopt national energy and climate plans (NECPs) for the 2021-2030 period. In October 2020, the European Commission published an assessment for each NECP. Austria's final NECP is from December 2019. A high proportion of Austrians (60 %) expect national governments to tackle climate change.

Austria generates 2.2 % of the EU's total greenhouse gas (GHG) emissions and has reduced emissions at a slower pace than the EU average since 2005. The country's carbon intensity is lower than the EU average, following a similar steady downward trend.

The transport sector accounted for 30 % of Austria's total emissions in 2019 and its share is continuing to rise, whereas in 2019 the energy industries accounted for just 13 % of the total emissions share. Austria is aiming to reach carbon neutrality by 2040. Under EU effort-sharing legislation, Austria was required to reduce non-ETS emissions by 16 % before end 2020, compared with 2005, and must achieve a 36 % reduction by 2030; this outcome currently seems unlikely.

Austria achieved a 33.6 % share of renewable energy sources in 2019. The country's 2030 target of 46-50 % renewable energy has a strong focus on delivering 100 % renewable electricity generation. The bulk of the measures planned to achieve the energy efficiency targets focus on buildings' heating needs and transport sector transition.

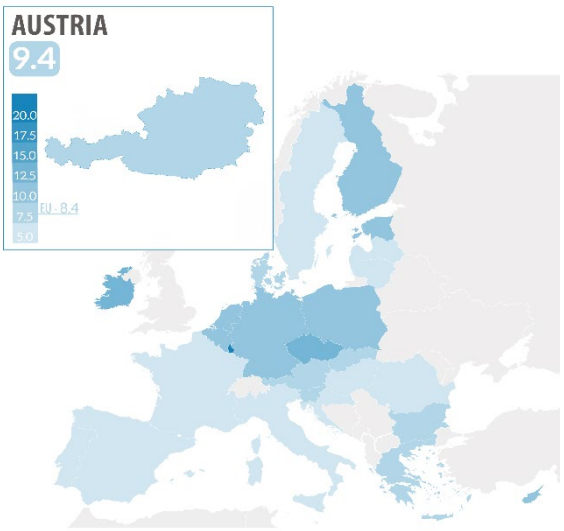
Emissions and demographics

In 2019, Austria had 8.9 million inhabitants, accounting for 2 % of the total EU27 population.

In 2019, GHG emissions per inhabitant in Austria were 9.4 tonnes of CO_2 equivalent (tCO_2e), above the EU average of 8.4 tonnes. Between 2005 and 2019, average emissions per Austrian citizen decreased by 18 %, whereas the European average decreased by 21 %. Austria followed the European descending trend until 2018, but diverged with an increase in 2019.

The Austrian population is projected to grow in the coming decades, and with the country's commitment to reduce GHG emissions, Austria's carbon intensity is expected to decline towards 2030.

Figure 1 – Total greenhouse gas emissions (tCO_2e) per inhabitant in 2019



Data source: Eurostat demo_pjan and EEA (GHG trends, GHG estimates, UNFCCC reporting).

This briefing is one in a series covering all EU Member States.

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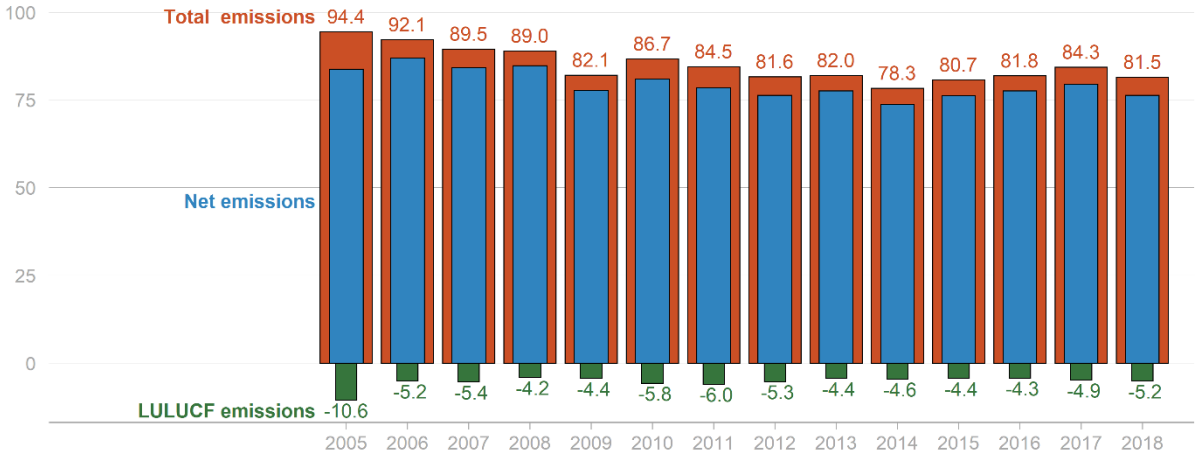
Austria's progress so far

Austria emitted 83 $MtCO_2e$ in 2019, accounting for 2.2 % of the EU total. The country's emissions fell by 12 % between 2005 and 2019. This is below the EU-wide emissions reduction of 19 % in the same period. According to latest available data, in 2018, Austria's net emissions amounted to 76.3 $MtCO_2e$, due to land use, land use change and forestry (LULUCF) sector removals.

The carbon sink capacity from LULUCF in Austria declined from an average level of 14 $MtCO_2e$ during the 1990s to a 9 $MtCO_2e$ average during the 2000s, and averaged 5 $MtCO_2e$ from 2010 to 2018. The NECP shows that this trend is projected to continue. Several initiatives are presented for LULUCF, focusing in particular on increasing carbon sequestration in forest floors and ensuring forest growth using high-performing tree species, under sustainable forest management principles. For the forestry sector the future forest support programme will focus on delivering more sustainable reserves of wood for use as materials or in energy generation.

Figure 2 – Total, LULUCF and net greenhouse gas (GHG) emissions ($MtCO_2e$)



Data source: EEA (GHG trends, GHG estimates, UNFCCC reporting).

The NECP mentions land use change as a critical issue on account of urban sprawl and inadequate protection in spatial planning tools. Austria loses 12.9 hectares (ha) of soil per day against a 2.5 ha target. In agriculture, Austria plans to reduce the use of mineral fertilisers and increase bioenergy.

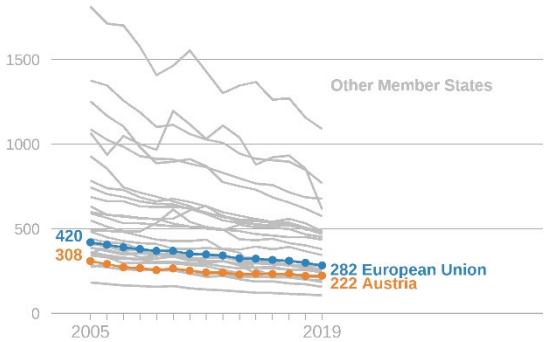
Carbon intensity

In 2019, Austria was the Member State with the fifth lowest GHG emissions per unit of gross domestic product (GDP), as shown in Figure 3.

Carbon intensity has not fluctuated in the same way as GDP in Austria. Over the 15-year period from 2005, Austria's carbon intensity declined steadily, before growing from 2013, rebounding from the impact of the 2008 financial crisis. At 28 %, this reduction was less steep than that registered at EU level – 33 %.

The NECP notes that with higher economic growth it can be assumed that Austria will fall some way short of meeting its energy and climate targets, and that additional funding and measures could be needed in that case.

Figure 3 – Carbon intensity of the economy: GHG emissions (gCO_2e) per unit of GDP (euros in 2015 prices)



Data source: Eurostat Nama_10_gdp [CLV15MEUR] and EEA (GHG trends, GHG estimates, UNFCCC reporting).

Emissions across the economy

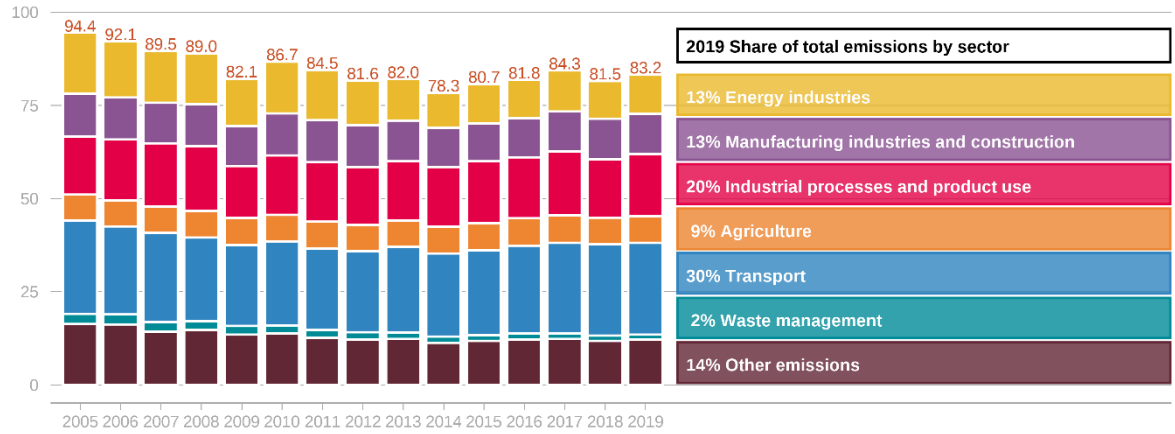
The transport sector accounts for the largest share (30 %) of Austria's total emissions, and decreased its emissions by only 1 % over the 2005-2019 period. Consequently, its share increased by 3 percentage points (pp) in the same period. Austria's NECP mentions two primary causes: a significant increase in distances driven, and transit traffic refuelling in Austria. In the 2020 country report for Austria, the International Energy Agency (IEA) estimates 'fuel tourism' emissions to constitute roughly 6.5 % of Austria's total emissions.

Photovoltaic energy is one of several renewable energy flagship project areas.

The energy industries sector meanwhile achieved a decrease in emissions of 36 % over the 2005-2019 period, reducing its share by almost 5 pp. In 2019, the sector accounted for 13 % of total emissions, against 24 % on average in the EU. In the 'other emissions' sector, covering buildings and tertiary industry, emissions dropped by 26 %, reducing the sector's share slightly, while for manufacturing industries and construction, an emissions reduction of only 6 % meant a 1 pp increase in its share.

At 52 %, the waste management sector registered the largest emission reduction over the period, although the sector's low overall share means its impact is limited. Emissions in both the agricultural and industrial processes and product-use sectors increased over the period, by 2 % and 7 % respectively; increasing the two sectors' total emissions share by 1 and 3 pp respectively.

Figure 4 – Total GHG emissions by sector ($MtCO_2e$) (rounded data)



Data source: EEA (GHG trends, GHG estimates, UNFCCC reporting).

The EU-wide emissions trading system (ETS) covers emissions from electricity generation and industry. In 2030, the EU currently aims to achieve emission reductions of 43 % in sectors covered by the ETS, compared with 2005 levels. Austria's target is to generate 100 % of total electricity consumption from domestic renewable energy sources by 2030. Industry covered under the ETS with own electricity generation from by-products is excluded from the target calculations.

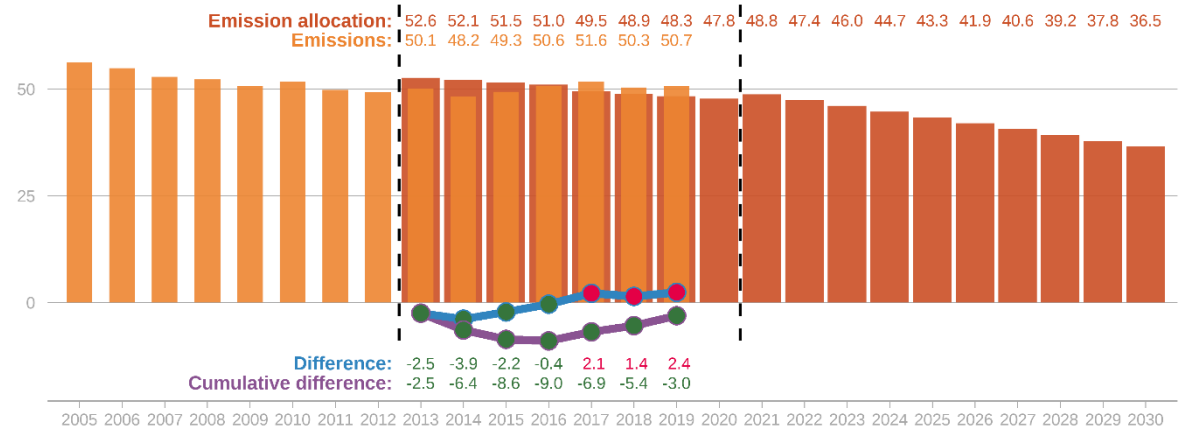
Most of the coal consumed in Austria is used in its iron, steel, and cement industries for non-energy purposes. Voestalpine, an Austrian steel producer, is committed to transitioning away from coal through the use of hydrogen and electricity in its steel production process. Along with partners, the company is participating in the European H2Future flagship project on green hydrogen. In 2018, the Austrian Presidency of the Council launched the 'Hydrogen initiative', and Austria is continuing to promote hydrogen as a viable and vital energy source, at both European level, with the Joint Hydrogen Declaration, and national level, with the upcoming Austrian hydrogen strategy.

Effort-sharing sectors

EU effort-sharing legislation covers emissions from sectors not covered by the ETS, such as transport, buildings, agriculture and waste. Under the Effort-sharing Decision (ESD), Austria had a binding target to reduce non-ETS emissions by 16 % in 2020, compared with 2005. To achieve the target, annual emissions allocations were determined for the 2013-2020 period, as shown in Figure 5. Austria's emissions have been above allocation levels for the last three years, although the cumulative difference keeps the country within the ESD limit. For the Effort-sharing Regulation (ESR) period of 2021 to 2030, Austria must achieve a 36 % reduction, compared with 2005. According to the NECP projections, the scenario with additional measures will achieve only 27 % by 2030.

The NECP mentions the goal of phasing out the use of fossil fuels for heating of new buildings as far as possible by 2030, and at the very least excluding fossil oil. Furthermore, the NECP puts a focus on reducing emissions from fluorinated gases by limiting buildings' cooling needs. Over the 2020-2030 period, Austria aims to reduce emissions from the building sector by 3-5 $MtCO_2e$.

Figure 5 – Austria's emissions under the Effort-sharing Decision/Regulation ($MtCO_2e$)

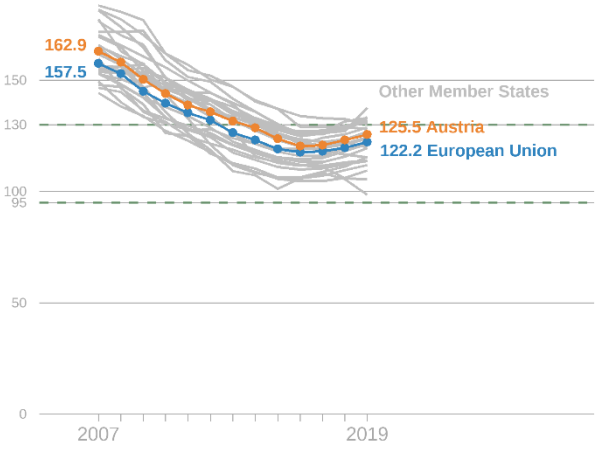


Data source: Commission ESD allocation, EUR-Lex and EEA, figures display rounded data.

To address the high and continuously increasing levels of emissions linked to transport, the NECP puts forward a reduction ambition of 7.2 $MtCO_2e$ by 2030 compared with 2016. To achieve this, the NECP points to the electrification of vehicles, enhanced mobility management and fleet renewal in the public and private sectors and modality shifts for freight transport by 2030, also including a minimum target of 14 % renewable energy in this sector. The Tax Reform Act 2020 has already implemented several green transport taxation measures to incentivise the transition. Masterplans are also being developed to support an increase in cycling and walking. In terms of investment, €97 million of the €166 million total planned investments target transport.

Emissions from new passenger cars in Austria have been close to the EU average since 2007 and have mostly followed the EU trend over the period. In 2019, there was a 3.3g CO_2/km gap between Austria and the EU average. While the EU-wide target of 130 g/km set for 2015 was met two years in advance, emissions from new cars in Austria are still far above the EU-wide target of 95 g/km that applies from 2021.

Figure 6 – Average emissions: new passenger cars (g CO_2/km)



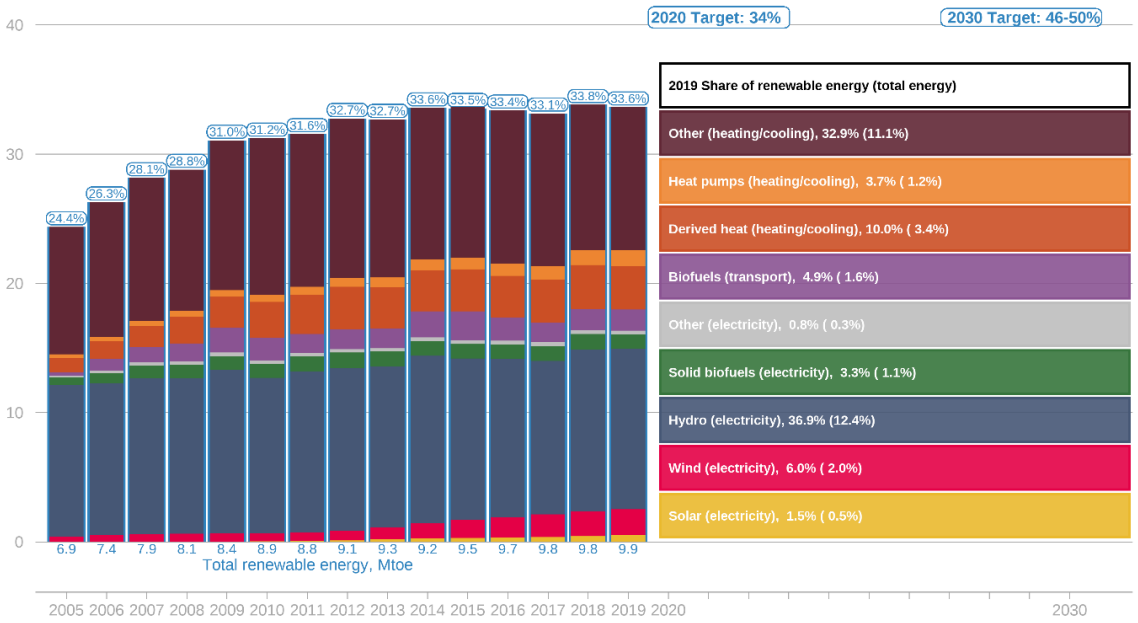
Data source: EEA and Eurostat sdg_12_30.

Energy transition

Renewable energy

Over the 2005-2019 period, Austria increased its renewable energy share from 24.4 % to 33.6 %, just below the country's 2020 target of 34 %. The European Commission assesses Austria's 2030 target range of between 46 and 50 % of renewable energy in the energy mix as adequate. Austria mentions several flagship projects on renewables in its #mission2030 strategy, including on hydrogen and biomethane, photovoltaics and biomass.

Figure 7 – Renewable energy share of gross final energy consumption



Data source: Eurostat (shares tool), NECP 2030 targets and EEA.

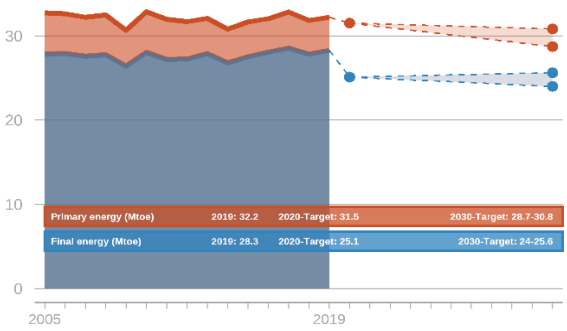
Austria lists wind, hydro and decentralised photovoltaic power sources as its means of achieving its commitment to 100 % domestic renewable electricity by 2030. Austria points to participation, digitalisation and decentralisation as important factors contributing to reaching this target. According to the Commission assessment, further work is needed to specify how Austria will ensure annual increases leading up to 2030 of 1.3 pp renewable energy in heating and cooling and 1 pp in district heating and cooling, as requested under the Renewable Energy Directive.

Energy efficiency

The European Commission has assessed Austria's 2030 ambition to be low for both its primary and final energy consumption targets.

The bulk of measures planned to achieve this commitment focus on the buildings and transport sectors. When it comes to energy efficiency in buildings, the NECP specifies targets for federal government buildings for the 2021 to 2030 period. Further measures and policies were determined in Austria's long-term renovation strategy delivered in April 2020. The Commission highlights that as the policies and measures planned are not quantified their potential contribution to achieving the proposed targets cannot be measured.

Figure 8 – Energy efficiency: primary and final energy consumption (Mtoe)



Data source: Eurostat nrg_bal_s, NECP 2020 + 2030 targets and EEA.

Outlook: Plans and policies

Austria's new government released its programme in January 2020, adding to the climate ambitions previously adopted as part of Austria's 2018 climate and energy #mission2030 strategy. The new government brought the carbon neutrality target forward a decade, from 2050 to 2040. This new target and other new coalition measures, along with the shortcomings identified with regard to the measures listed in the current NECP for reaching the 2030 effort-sharing target, triggered a process of updating the NECP in Austria. The European Commission assessment of the current NECP mentioned that no synergies had been explored between the policies set out for decarbonisation (GHG and renewable energy) and for energy efficiency.

The new government coalition has put climate action centre stage, promising to enact a new climate protection law comprising binding emission reduction pathways and also sectoral targets for 2040 with 2030 interim targets. The government has also increased the level of ambition for several existing measures, with examples including raising the target for roof-mounted photovoltaic installations under the #mission2030 strategy from 100 000 to 1 million by 2030, and phasing out oil or coal-fired heating systems for all buildings by 2035. Natural gas heating will be prohibited for new buildings from 2025.

Austria is a federal republic with nine provinces, where competence for climate action can lie either at federal or provincial level, depending on the area. The new government formed a new Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, which will have full competence over energy policy, in an effort to reduce complexities and speed up processes. Responsibility for spatial planning, building codes, land use and infrastructure permit procedures lies at provincial level. The International Energy Agency has recommended that Austria review the division of competences and consider efforts to streamline procedures.

On 7 July 2021, the Renewable Expansion Act was passed in the National Parliament, committing Austria to 100 % green electricity by 2030.

MAIN REFERENCES

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