Climate action in Malta

Latest state of play

The EU's binding [climate and energy legislation](https://www.euractiv.com/section/climate-energy/news/2030-climate-action-plan/) for 2030 requires Member States to adopt [national energy and climate plans](https://ec.europa.eu) (NECPs) covering the period 2021 to 2030. In October 2020, the European Commission published an [assessment](https://ec.europa.eu) for each NECP. Malta's final NECP is from December 2019. A high proportion of Maltese people (75%) expect national governments to tackle climate change.

Malta, which generates less than 0.1% of the EU-27's total greenhouse gas (GHG) emissions, has reduced its emissions at a faster pace than the EU average since 2012. However, according to Malta’s NECP, the country's geography and demographics, combined with rising gross domestic product (GDP), will make it difficult to continue this trend.

Energy industries account for 28% of Malta's total emissions. While energy industry emissions dropped by 63% between 2005 and 2019, emissions in the transport sector grew by 22% over the same period. Malta's NECP outlines policies and measures to increase the share of renewable energy and reduce transport emissions. However, Malta does not expect to meet its emissions reduction targets under the Effort-sharing Regulation domestically, but intends to make use of flexibilities, including the transfer of annual emissions allocations from other Member States.

Emissions and demographics

In 2019, Malta had approximately half a million inhabitants, representing 0.1% of the total EU-27 population.

With 5.3 tonnes CO₂ equivalent (CO₂e) per inhabitant in 2019, Malta had the second-lowest per-capita emissions in the EU-27 – significantly below the EU average of 8.4 tonnes. Malta’s per-capita emissions fluctuated around 8 tonnes between 2005 and 2012, and have been falling since then. The gap between Maltese and EU average per-capita emissions increased from 2.7 tonnes to 3.1 tonnes CO₂e over the 2005-2019 period.

According to [projections](https://www.eea.europa.eu), the Maltese population will continue to grow in the coming decades, with one of the highest growth rates in the EU.
Malta’s progress so far

Malta was responsible for emissions of 2.6 million tonnes of CO₂e in 2019 – less than 0.1 % of total GHG emissions in the EU-27. Between 2005 and 2019, the country reduced its emissions by 18.6 %, at a rate similar to the EU-27 (19.4 %). Between 2005 and 2014, Malta’s emissions fluctuated between 3.2 and 3.5 MtCO₂e. Emissions dropped sharply in 2015, and have remained steady at around 2.6 MtCO₂e since then. The drop in emissions from 2015 has resulted from changes in the energy sector, notably the electricity interconnection with Sicily and the shift from heavy fuel oil to natural gas in local electricity generation.

Figure 2 – Total, LULUCF and net greenhouse gas (GHG) emissions (MtCO₂e)

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

Malta’s land use, land use change and forestry (LULUCF) sector is a negligible source of emissions, with annual net emissions below 5 000 tonnes CO₂e over the 2005-2019 period. Malta has only 200 hectares of woodland, and afforestation in recent years has focused on recreational uses. In order to comply with the EU LULUCF Regulation, which requires balanced emissions and removals in the LULUCF sector, the Maltese government is planning afforestation projects and intends to improve the accounting methodology for LULUCF emissions and removals. However, the potential for afforestation is limited by the country’s geography, climate and demographic development.

Carbon intensity

The carbon intensity of the Maltese economy decreased over the 2005-2019 period, reducing GHG emissions per unit of GDP by 69 %. Malta achieved one of the greatest reductions during this period, going from above EU average in 2005 to one of the lowest values of all Member States in 2019. High GDP growth, in combination with emissions that remained stable over the 2005-2014 and 2015-2019 periods, translates into continually falling carbon intensity, with a steep decline around 2015, corresponding to a drop in total emissions.

With GDP forecast to grow in the coming years and with efforts to curb GHG emissions, a further fall in carbon intensity should be possible.
Emissions across the economy

The energy industries have had a very strong influence on GHG emissions in Malta. In 2019, this sector accounted for 28% of total GHG emissions. However, as noted above, electricity imports and a shift in the energy mix led to a steep reduction in this sector from 2015 onwards. The EU-wide emissions trading system (ETS) covers emissions from electricity generation and industry.

The Maltese government aims to meet growing electricity demand with renewables, efficient fossil power plants and interconnection capacity. To achieve this the government has planned investments and support schemes. However, its NECP notes limitations in terms of economies of scale that result in a relatively high cost of renewable energy deployment.

Following a contrasting trend, emissions from industrial processes and product use grew more than six-fold between 2005 and 2019, and accounted for 12% of Malta's GHG emissions in 2019. This growth is almost entirely driven by refrigeration and air-conditioning, due to increased household demand linked to population growth and economic development. The waste sector reduced its emissions by 15% over the period. Agriculture and manufacturing industries and construction represent only a small share (3% and 2%, respectively) in total emissions, and kept their emissions stable over the period.

Transport sector emissions increased by 22% between 2005 and 2019, accounting for 24% of total emissions in 2019 and more than half of Malta’s final energy consumption. Malta’s geographic isolation increases its reliance on air transport: aviation accounts for 40% of the final energy consumed in the country’s transport sector.

‘Other emissions’, a category that comprises buildings and tertiary industry, have grown by 64%. To address these emissions, Malta aims to increase the share of renewable energies in heating and cooling through support for solar and heat pump water heaters, and the deployment of air-to-air reversible heat pumps, the use of which is expected to increase without the need for any further policy intervention. However, the trend towards high rises and multi-apartment buildings is limiting the technical potential of solar water heaters. The NECP rules out other options like district heating and cooling systems – considered neither technically viable nor cost-effective – or biomass, which would need to be imported at a high cost.
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), covering the 2013-2020 period, Malta was allowed to increase its non-ETS emissions by 5% by 2020, compared with 2005 levels. However, Malta’s non-ETS emissions were above the emission allocation under the ESD for each year from 2013 up to 2019, resulting in a cumulative difference of 1.2 Mt CO₂e, or one annual emission allocation.

For the 2021-2030 period, the Effort-sharing Regulation (ESR) commits Malta to a 19% reduction in GHG emissions compared with 2005. However, according to the European Commission, Malta’s domestic emissions are projected to increase by around 41% by 2030. The NECP states that Malta is having difficulties in meeting its ESR targets domestically because of limited mitigation potential and high mitigation costs. Instead, the country intends to comply with the annual ESR targets by making use of the ESR’s flexibility options, including the transfer of allowances between Member States. Moreover, the Maltese authorities plan to make the most of the flexibility provided in the ESR to transfer 2% of 2005 ESR emissions per year from the ETS to ESR.

The transport sector has by far the highest GHG emissions among non-ETS sectors, with road transport being heavily dependent on private cars. The NECP sets out a number of measures to support electromobility, public transport, car sharing and other means of transport, such as cycling.

CO₂ emissions from new passenger cars in Malta were below the EU average throughout the 2005-2019 period and kept decreasing even after 2016, when EU average emissions from new cars started to rise again. A sharper reduction was registered from 2017 onwards, widening the gap compared with the EU average from 9.7 gCO₂/km in 2005 to 16.9 gCO₂/km in 2019. The Maltese government is planning to set a cut-off date for the import and registration of petrol and diesel cars in Malta. Combined with support for electromobility, namely through grant packages, favourable taxation of electric vehicles and investment in charging infrastructure, this is likely to reduce future CO₂ emissions from the transport sector.
Energy transition

Renewable energy

Malta increased its share of renewable energy from 0.1% of gross final energy consumption in 2005 to 8.5% in 2019. This advance was mainly driven by solar electricity generation, transport biofuels and heat pumps in the heating and cooling sector. However, according to the NECP, the country has only limited potential for renewable energy deployment because of the physical and spatial constraints arising from the geology and topology of the Maltese islands.

Figure 7 – Renewable energy share of gross final energy consumption

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

Malta's indicative target for its share of renewable energy by 2030 is 11.5%, which the Commission considers unambitious and below the 21% share suggested by the Governance Regulation. Solar electricity, for which Malta has one of highest yields in Europe, is expected to cover 42% of the country's total renewable energy consumption in 2030.

Energy efficiency

The European Commission considers that Malta’s 2030 targets for energy efficiency represent a very low level of ambition, especially when compared with the EU’s 2030 targets.

The NECP identifies transport as the main sector for potential energy savings, with measures such as the above-mentioned electrification of transport and a possible cut-off date for importing and registering petrol and diesel cars. On the other hand, the buildings sector is not yet subject to specific targets. Overall, according to the Commission’s assessment, the measures set out in the NECP appear to be aligned with Malta’s very unambitious targets.

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

Malta has been designing national strategies and programmes to address climate change and sustainability since 2006. The 2015 Climate Action Act is Malta’s main law on climate change and the foundation of its national climate policy. The act establishes a Climate Action Board, a body in which all sectors of Maltese society are represented, aiming to mainstream climate action, monitor implementation of international and EU commitments to reducing GHG emissions, and facilitate preparedness and adaptation to climate impacts. The Climate Action Act also requires the government to prepare a low-carbon development strategy and a national adaptation strategy that will be reviewed and updated at least every four years.

The Commission’s assessment of Malta’s NECP states that the document still lacks ambition, even considering the country’s limited mitigation potential and high mitigation costs. The Commission had made 10 recommendations in response to a draft version of the plan, most of which were not or only partially taken up in the final NECP.

Malta’s sustainable development vision with a horizon to 2050 is geared towards alignment with EU climate policies through improvements in energy efficiency, an increased share of renewable energy, changes to the transport system, and reduction of agricultural GHG emissions.

The Maltese government is currently preparing policies to look beyond the 2030 perspective and towards climate neutrality by 2050. The low-carbon development strategy is being designed to address both mitigation and adaption, updating current strategies and initiatives in the areas of enterprise, energy, transport, waste, water, agriculture, tourism, digitalisation, finance and expert knowledge.

MAIN REFERENCES

Malta’s 2030 national energy and climate plan 2021-2030, December 2019.

European Commission, Assessment of the final national energy and climate plan of Malta, SWD(2020) 917, October 2020.


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