

Technical Note

Delivering the European Green Deal, results of the “Fit for 55” core policy scenarios for the EU Member States

July 2021

Introduction

This document accompanies the publication of the Member State-level results of the three “core policy scenarios” used across the impact assessments supporting the “Delivering the European Green Deal” (referred to below as “Fit for 55”) policy initiatives¹.

These model-based projections represent an energy system and economy-wide GHG emissions balance compatible with the at least 55% GHG reductions by 2030 under three representative policy mixes.

The core policy scenarios have been produced with the same modelling suite as the one used for the EU Reference Scenario 2020 (see related publication), ensuring consistency with the “baseline” situation of the policy initiatives as well as consistency of treatment for all Member States.

Description of the core policy scenarios

Building upon the Climate Target Plan (CTP) analysis², three core policy scenarios have been defined to serve as common tools for analysis across the impact assessments of various initiatives of the “Fit for 55” policy package:

- **REG:** relying on very strong intensification of energy and transport policies in absence of carbon pricing in road transport and buildings. In REG, maritime transport sector is included in the EU ETS.
- **MIX:** relying on both carbon price signal extension to road transport and buildings and strong intensification of energy and transport policies. With its uniform carbon price (as of 2025), it reflects either an extended and fully integrated EU ETS or an existing EU ETS and a new ETS established for road transport and buildings with emission caps set in line with cost-effective contributions of the respective sectors. Maritime transport sector is assumed to be included in the existing EU ETS in MIX.
- **MIX-CP:** representing a more carbon price driven policy mix that illustrates a revision of the EED and RED but limited to a lower intensification of current policies in addition to the carbon price signal applied to new sectors.

Unlike MIX, this scenario allows to separate carbon price signals of “current” and “new” ETS. The relative split of ambition in GHG reductions between “current” ETS and “new ETS” remains, however, close in MIX-CP to the MIX scenario. As a consequence, considering the different

¹ [Delivering the European Green Deal | European Commission \(europa.eu\)](https://ec.europa.eu/euro-observatory/publications/delivering-the-european-green-deal)

² See the Climate Target Plan impact assessment (SWD/2020/176 final)

assumptions on policies, this leads to differentiated carbon prices between “current” ETS and “new” ETS. Maritime transport sector is assumed to be included in the “current” ETS in MIX-CP.

These three “Fit for 55” core policy scenarios have been produced starting from the EU Reference Scenario 2020 and thus use the same updated macro-economic assumptions, including the impact of the COVID pandemic and international fuel prices.

More details on the modelling framework, definitions and policy content of these scenarios can be found in the “analytical methods” annex of the impact assessments related to the ETS, ESR, RED or EED under the “Fit for 55” policy package. In addition, the EU Reference Scenario 2020 publication provides in particular the description of all common assumptions (socio-economics, technologies, international fuel prices) and of the climate, energy and transport policy context considered as the “baseline”.

Scope of results published

The results cover the following four dimensions:

- Energy, transport and overall GHG emissions (from the PRIMES model), available for the three policy scenarios;
- Details on non-CO₂ GHG emissions (from the GAINS model), available for the MIX scenario and the MIX-CP scenario; the ambition for the mitigation of non-CO₂ GHG emissions in the REG scenario has been assumed to be the same as in the MIX scenario;
- LULUCF emissions (from the GLOBIOM model), available for the MIX scenario;
- Air pollution (from the GAINS model), available for the three policy scenarios.

Disclaimer

These projections should not be seen as the only possible pathway, notably at Member State level, compatible with reaching the at least 55% GHG reductions at EU level. They may also not always reflect the most recent policy announcements at national and EU level. In addition, it is important to note that actual future developments will be influenced by the evolution of a large number of drivers for which assumptions had to be made: socio-economic developments, technologies costs and performances, international fuel prices, speed of policy implementation, international context, etc. Finally, the EU policies actually in place and their interactions will also influence the way GHG emissions reductions and energy systems develop in the various countries.