
The Energy Efficiency Directive and non ETS GHG emission reductions

July 2015, update October 2016 with new EU reference scenario 2016 and ESR proposal

Analysis by Stefan Scheuer Consulting shows that new and additional energy savings resulting from an extension of the Energy Efficiency Directive (EED) to 2030, as required to realise the EU's cost-effective potential for energy savings, would significantly reduce non-ETS GHG emissions.

Extending and strengthening the Article 7 of the EED¹, 1.5% annual energy savings to 2030, would close the EU's projected gap to the 30% GHG emission reduction target in the non-ETS sectors. Further emission reductions from EU product standards beyond 2020 and, at national level, reduction of non-CO2 emissions from agriculture or waste would further reduce GHG emissions.

The national picture is diverse. While the potential for energy efficiency improvements is fairly equal across all Member States² - with the ease of tapping these potentials limited by non-economic barriers, such as lack of information and access to financing, which can be overcome by policies, the non-ETS effort sharing targets are mainly related to national GDP differentials.

Our analysis is based on data as provided by the EU reference scenario 2016³, the GHG impact of ambitious vehicle standards (cars, vans, trucks and buses) as projected by Transport & Environment⁴ and own calculation of GHG impacts from extending and strengthening the Article 7 of the EED, and applies following assumptions:

- The reduction in energy demand due to article 7 reduces GHG emissions in both ETS and non-ETS sectors by the same relative amount;
- There is no change in non-energy related emissions due to article 7; and
- There is no change to the energy mix beyond those projected by the EU reference scenario.

¹ Article 7 of the EED requires MSs to deliver final energy savings in end-use sectors, an important aspect to achieving the overarching EU energy efficiency target. The savings must be cumulative, which means that it is based on incremental annual savings of 1.5% every year that deliver a total volume of savings by 2020. Member States are allowed to use exemptions in setting their targets for article 7, which on average reduces the delivered savings to 0.75% per year. For this analysis it is assumed that the target would be extended to 2030 and exemptions would no longer be allowed (i.e. sales of energy to transport would be included in the target), this would mean the target would be the full 1.5% per year and therefore closer to the cost-effective energy efficiency potentials identified by research commissioned by DG Energy in 2014 (Fraunhofer ISI et al.).

² Fraunhofer ISI 2010; Concrete Paths of the European Union to the 2°C Scenario: Achieving the Climate Protection Targets of the EU by 2050 through Structural Change, Energy Savings and Energy Efficiency Technologies, published by BMU

³ EU Reference Scenario 2016, Energy, transport and GHG emissions, Trends to 2050

⁴ Transport & Environment. June 2016. Road to 2030: how EU vehicle efficiency standards help member states meet climate targets. Transport emissions reductions in the context of the 2030 Effort Sharing Decision.



Impact of extending the EED and transport measures to 2030 on closing the gap to non-ETS GHG emissions targets

