



Households responsible for 25% of EU GHG emissions, says report

A different picture of greenhouse gas (GHG) emissions can be achieved if responsibility for emissions from different economic sectors is placed with the end energy users, according to a new report from the European Environment Agency (EEA). This approach makes sectors such as households responsible for many emissions that would otherwise be attributed to the energy industry.

Under the United Nations Framework Convention on Climate Change (UNFCCC) guidelines for emissions reporting, emissions for the energy industries include those attributable to heating and electricity use for the household sector. According to this scheme, only energy generated at home – for instance, by burning coal in a stove – counts towards residential emissions.

The EEA report applies a new demand-focused method, which attributes energy use and emissions to the end user. This means that emissions from the energy industries are shifted both to the residential sector and the other end users which are responsible for the electricity and heat demand that leads to the generation of those emissions. Using the end user model, a quarter of all emissions are attributed to households, both directly and indirectly. Homes in the EU only emit 12% of energy emissions directly. Most emissions associated with commercial and residential sectors are indirect emissions from heating and electricity – the energy for which is generated at heat and power plants.

In 2009, the European Council committed to reduce GHGs by 20% below 1990 levels by 2020. GHGs in the EU are regulated under two broad areas. Most (around 60% of the total in the EU) fall under the Effort Sharing Decision (ESD)¹, which covers direct emissions from households, services, transport, waste and agriculture, under countries' national commitments to emissions cuts. The rest come under the Emissions Trading System (ETS)², which covers direct emissions from energy transformation industries, in other words, heat and power plants, and other major industrial installations.

The EEA report finds that emissions are already decreasing across all sectors, revealing a downward trend from 2005 onwards, but emissions covered by the ETS are falling more steeply. In 2009, the biggest reductions were in the industry sector, which contributed two thirds of the total emissions reductions by end use. The residential sector contributed around 9% of the total emissions reductions.

The highest emissions for 2009 were for the transport sector, at 29%, but emissions for the sector also fell in 2009, contributing 12% to total emissions reductions that year. Most transport emissions are direct and covered by ESD. Over the coming decades, the EEA expects electric vehicles will begin to redistribute more of the emissions from transport across the ETS area, via indirect emissions from electricity. Reductions in transport emissions will then depend on the energy sources used for electricity.

According to the EEA, by reallocating indirect emissions to the end users, policymakers will gain a clearer understanding of how household energy demand affect overall emissions and thus, the impact of future emissions reductions in the household sector via implementation of measures such as energy efficiency improvements will become more apparent. The same will be true of other sectors, which could help policymakers to develop policies that encourage emissions reductions in specific sectors.

1. See: http://ec.europa.eu/clima/policies/effort/index_en.htm
2. See: http://ec.europa.eu/clima/policies/ets/index_en.htm

Source: EEA. (2011). *End-user GHG emissions from energy: Reallocation of emissions from energy industries to end users 2005–2009*. EEA Technical Report, 19, 1-12. This report can be downloaded from: <http://www.eea.europa.eu/publications/end-use-energy-emissions>

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