

Quality of petrol and diesel fuels

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In accordance with Directive 98/70/EC, Member States are required to report on the quality of petrol and diesel fuel used for road transport in the European Union (reporting year 2017).

The Fuel Quality Directive obliges Member States to require fuel suppliers to reduce the life cycle GHG intensity of transport fuels, i.e. the life cycle GHG emissions per unit of energy from fuel and energy supplied, by a minimum of 6 % by 31 December 2020 compared with the fuel baseline standard for 2010 of 94.1 gCO₂eq/MJ₄.

A total of 22 Member States as well as Iceland and Norway, provided corresponding data in the appropriate format. Estonia, Lithuania, Poland, Portugal, Romania and Spain submitted reports on the quality of the fuels placed on the market by fuel suppliers but not on their greenhouse gas intensity.

Greenhouse gas emissions and distance to 2020 target

According to the data provided, the average GHG intensity of the fuels and energy supplied in the 22 reporting Member States in 2017 was 3.4 % lower than the 2010 baseline. This corresponds to a saving of 29 Mt carbon dioxide equivalent (CO₂eq) in the year 2017. To ensure the delivery of the minimum 6 % reduction target by 2020, the Fuel Quality Directive specifies that Member States may require fuel suppliers to comply with an intermediate reduction target of 4 % for the year 2017.

Fuel supply

The report noted that 22 Member States reported on all fossil fuels, biofuels and fuels of non-biological origin within the scope of the Fuel Quality Directive for road transport and non-road mobile machinery. Total fuel supply reported was 8 976 petajoules (PJ), of which 95.5 % was from fossil fuels, and 4.5 % was from biofuels. No renewable fuels of non-biological origin were reported in 2017. The fossil fuel supply in 2017 was dominated by diesel (55.8 %; 5 007 PJ), followed by petrol (27.6 %; 2 474 PJ) and gas oil (14.8 %; 1 324 PJ). Liquefied petroleum gas and compressed natural gas had a total share of 1.8 % (167 PJ).

Biofuel consumption

The biofuels consumption in the reporting Member States was dominated by biodiesel (fatty acid methyl ester, FAME) (62.3 %; 267 PJ), followed by bioethanol (17.5 %; 75 PJ) and hydrotreated vegetable oil (HVO; 16.6 %; 71 PJ). Bio-ethyl tert-butyl ether (bio-ETBE) and biogas account for almost 3 % (12 PJ).

Petrol and diesel and biocomponent content

Diesel continues to dominate fuel sales in the EU: 72.3 % (270 668 million litres) of fuel sold in 2017 was diesel and 27.7 % was petrol (103 766 million litres). Petrol sales in 2017 increased by 2.9 % compared with 2016, whereas diesel sales increased by 5.2 %.

Overall, fuel sales of petrol and diesel increased by 4.6% compared with 2016. This is the result of increased transport demand that outweighed efficiency gains in the vehicle fleet.

Diesel fuel consumption is significant in most EU Member States, representing more than 60 % of total fuel sales in 23 Member States (all except Cyprus, Greece, Malta and the Netherlands; Romania did not submit a complete report for 2017).

Compliance of sold fuels with quality limits

Overall, fuel quality in the EU is high. Bulgaria, Malta and Sweden verified and reported full compliance for both petrol and diesel fuels, while nine Member States verified and reported full compliance for petrol (Austria, Bulgaria, Greece, Hungary, Lithuania, Malta, Netherlands, Slovenia and Sweden) and seven for diesel (Bulgaria, Croatia, Cyprus, Finland, Latvia, Malta and Sweden). One Member State (Belgium) reported more than 100 non-compliances for petrol in 2017. Member States reported a total of 496 cases of non-compliance for petrol and 141 for diesel for 2017.