

Report: EU underestimates biofuels' greenhouse gas savings by 50%

Published: 12/11/2014 - 07:13 | Updated: 12/11/2014 - 12:15

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Biofuels work at Argonne National Laboratory. [Argonne/Flickr]

The European Union has underestimated the greenhouse gas emissions savings offered by biofuels by as much as 50%, according to a report published today.

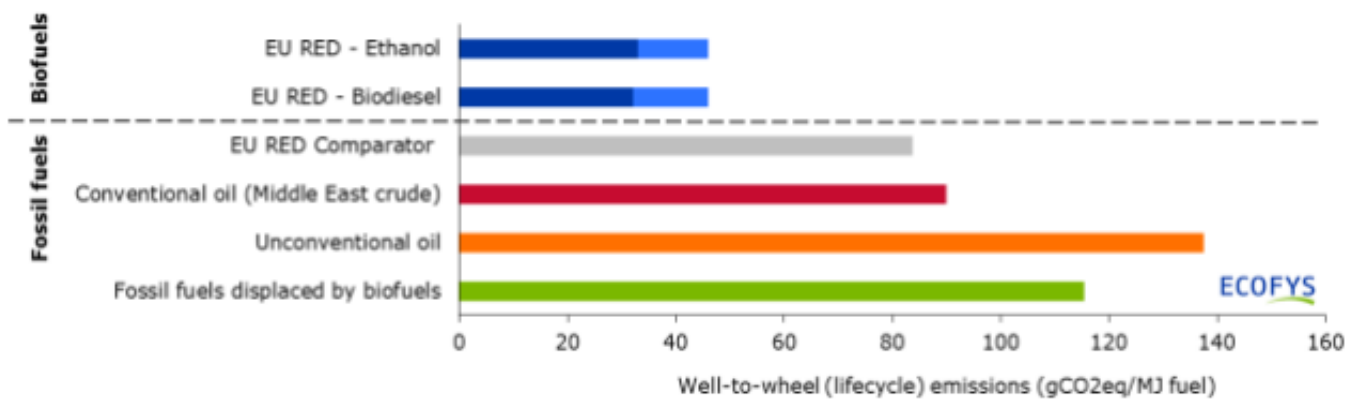
To correctly understand the benefits of biofuels, their emissions should be compared to the fossil fuel emissions they replace in the market, the [Ecofys study](#) said.

The EU's Renewable Energy and Fuel Quality Directives compare the savings to the average carbon intensity of fossil fuels on the EU's road petrol market.

The climate and energy consultancy's report analysed what fossil fuels would be on the market, if biofuels were not available.

Under those circumstances, biofuels would mostly replace fuels made from unconventional oils and not those represented by the average blend of fuels.

Unconventional oils such as oil sands, light tight oil and kerogen have an estimated carbon intensity of 115 gCO₂eq / MJ. The EU estimates the average blend comparator at 83.8 gCO₂eq / MJ.



The EU's current comparator is underestimating the greenhouse gas benefit of biofuels by about 32 gCO₂eq/MJ, the report said. The difference is "in the same order of magnitude as the ILUC factors currently proposed for biofuels."

ILUC stands for Indirect Land Use Change, a way of compensating for the production of biofuels on existing agricultural land. It implies that elsewhere in the world that food must be replaced by changing, for example, forest into farmland.

Even if one accepts the "average" approach used by EU legislators, the fossil comparator should be adjusted upwards, said the study, on the greenhouse gas impact of marginal fossil fuel use.

Unconventional fuels have a growing share of the EU market and their carbon footprint is much higher than conventional oil. As their market share increases, so will their greenhouse gas footprint.

Unconventional oils are particularly emission heavy as they are difficult to extract and produce.

Conventional oil has a growing carbon footprint because, as larger fields are depleted, extractive efforts increase while smaller fields are taken into operation. Both up the fuel's carbon footprint.

What does it mean for policy?

The study said that biofuels could help decarbonise the transport sector, one of the largest polluters.

Both the Renewable Energy Directive, which calls for a 10% renewable energy target in transport by 2020, and Fuel Quality Directive, which promotes a 6% reduction of greenhouse gas emissions by 2020, are in play.

But amendments to both are before the European Parliament for a second reading as part of the ILUC Directive. The Council has had its [first reading](#) in June this year.

The recently published Commission proposal to implement existing obligations of the Fuel Quality Directive readjusts the fossil comparator to 94.1 gCO₂eq.

But, for what are believed to be political reasons, it still proposes to compare biofuels with the older fossil comparator at 83.8 gCO₂eq.

Environmental campaigners argue that Europe's biofuels market causes people around the world to go hungry, rainforests to be cleared and global warming to accelerate.

EurActiv requested a comment on the findings from the European Commission. It said it had no comment to make.

EXTERNAL LINKS:

Ecofys

- Website: [Report](#)

[EurActiv.com](#) | [James Crisp](#)

Sections:

[ENERGY](#) [CLIMATE & ENVIRONMENT](#) [TRANSPORT](#)

Topics:

[BIOFUELS](#) [GREENHOUSE GAS EMISSIONS](#) [ILUC](#) [INDIRECT LAND-USE CHANGE](#)

BACKGROUND

The EU has a target of 10% renewable energy in transport fuel by the year 2020, contained within the renewable energy directive (RED).

Meanwhile, the fuel quality directive (FQD) requires a 6% reduction in the carbon footprint of transport fuels by the same year.

EU negotiators have agreed to a 7% cap on biofuels made from food crops in transport fuel, in a move environmentalists say was a “timid step” in the right direction.

Campaigners have pushed for the accounting of indirect land-use change (ILUC) from biofuels in EU legislation, saying demand for bioenergy in Europe was causing farmers in countries such as Indonesia to switch crops from food production to energy, causing a rise in food prices.