



THE UCO SCAM

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2021

SUMMARY

The article discusses the continued dominance of fossil fuels in the transport sector. Despite many efforts to decarbonize, the influence of fossil fuels remains. It is a critical look at the challenges that continue to block the path to more sustainable mobility.

Fossil fuels continue to have a firm grip on the transport sector

Fossil fuels are still far ahead on the road with 94% – the rest are biofuels with 5.6% and renewable electricity with 0.4%. Three-quarters of the additional energy demand during this period was met by fossil fuels. Biofuels accounted for 98 percent of the growth in renewables. The fraud with rapeseed oil and UCO (edible fat fuel) continues.

While the EU Commission highlights a figure of 8.88 percent for renewables in the transport sector for 2019, this is not the true figure, as it includes about 8.2 million tons of fossil fuels classified as renewables under the multiplier loophole of the Renewable Energy Directive. The true share of renewable energies is a more modest 6.3 percent.

Thus, a considerable part of what is declared and actually consumed as renewable energy in transport is in fact fossil fuel. From a reporting perspective, it is crucial that the Commission stops including fossil fuels in its overall figures for renewables in the transport sector, as they have a highly distorting effect.

Politicians are called upon to issue guidelines to improve the fight against fraud in the countries of origin, especially for used cooking oil fuels. It should report the biomass types and origin of plant-based biofuels, especially in the case of palm oil fuels – and it should report the biomass types and provenance for advanced biofuels so that policymakers can track and modulate the impact of its regulation.

Even if 8 million tonnes of fossil fuels are counted as renewable and one or two million tonnes of fuels made from palm oil are labelled as UCO (edible fat diesel), the data shows that the growth of total transport energy has been twice as fast as the growth of renewables over the past five years. If you subtract the questionable fossil fuel, the growth of fossil fuels exceeds that of renewables by a factor of three during this period. For the year 2030, the European Commission has set a target of 24 percent renewable energy for the transport sector and a similar level in reducing carbon emissions. Nevertheless, it is difficult to see how current trends can be changed so radically. Massive measures must be taken to support the use of renewable electricity. Palm oil biodiesel and UCO fraud must be brought under control.

Multipliers should be abolished, as they are just another form of distraction from climate action, while the policies and behaviour of member states distort fossil fuel shares. The reforms of the 2015 European Tax Directive should be updated, and soon. Biogas – the sleeping beauty of European renewables – needs to be drastically expanded. The EU needs to promote the contribution of sustainable European biofuels, which could easily double by 2030. Positive policy measures should be taken to make this possible. If there is one thing that should be capped, it is fossil fuel consumption, not sustainable European biofuels.

A Reflection

In December 2020, the European Commission published its latest data¹ for transport energy and renewables in Europe, as reported to it by Member States for 2019 under the Renewable Energy Directive. Eurostat has reviewed the data and presents its findings here.

Steady increase in energy demand in transport, half of which is renewable

According to EUROSTAT data, energy demand in transport increased by 7 percent overall in the five years to 2020, with an increase of almost 1 percent in 2019. The number of vehicles grew at a similar rate¹, with the EU fleet size increasing by around three million cars and trucks with an internal combustion engine per year.

The trend towards renewable energies is improving somewhat: in 2019, the share of additional energy demand covered by fossil fuels fell to 45 percent, with the rest coming from additional renewable energies. Almost all (>98 percent) of the additional renewables in 2019 were biofuels, with the rest accounted for by renewable electricity.

Fossil fuels are treated as renewable under the RED multiplier rules

The RED method of adding renewables in the transport sector includes significant amounts of fossil fuels in the figures, which leads to some bias in reporting. The multiplier scheme allows some renewable energies to be counted by two or several times their actual values when adding up the total number in order to incentivise their development. This means that the actual consumption of renewable energies is not shown.

The distortion is increasing every year: the share of fossil fuels in renewables reported by the Commission rose to almost 30% in 2019, up from 19% five years ago. In fact, the growth of fossil fuels classified as renewable by the Commission in 2019 was greater than the growth of actual renewables during this period. For example, fossil fuels classified as renewable by DG Energy* grew 70 times faster than true renewable electricity.

Fossil fuels are a major driver of growth among renewable energies

Some countries rely more on this practice than others. In the UK, for example, fossil fuels accounted for 45 per cent of the transport renewables it reported under Brussels rules for 2019. The country increased its consumption of biodiesel from used cooking oil, which has been counted several times, by 55 percent compared to the previous year. For every 1.1 billion litres of UCO that the UK put into its diesel, it declared an equivalent litre of fossil fuel as renewable.

Is the development of fuels from used cooking oil legitimate?

Used cooking oil UCO is by far the largest example of multi-counted energy, and far from being a niche existence. UCO, it has become a dominant element over the distorting effects of multipliers.

According to the data, UCO grew by 35 percent in the EU last year. Since 2014, by an average of 44 percent per year. Consumption reached 4.1 billion litres in 2019, up from 517 million litres in 2014. While the UK, Germany and the Netherlands accounted for 65 per cent of total UCO demand in 2019, France, Ireland, Portugal and Spain together accounted for a further 20 per cent. Ireland, Luxembourg, Malta and the Netherlands were the largest per capita consumers of UCO diesel in 2019, with Ireland at 38 litres per person and Luxembourg at 60 litres per capita. These are large numbers when you consider that a country with a mature UCO collection infrastructure collects at most 4 to 5 liters per year domestically, while most countries in the world collect less than 1 liter per person, or quite often none at all.

Die Mehrheit der EU-Mitgliedsstaaten strebte im letzten Jahr eine starke Steigerung der UCO-Nutzung an, wobei Großbritannien, Schweden, Spanien, Irland, Slowenien, die Slowakei, die Niederlande, Ungarn, Frankreich, Tschechien und Kroatien alle an einer schnellen Expansion beteiligt waren. Nur in Deutschland ging der UCO-Verbrauch gegen den Trend um 23 Prozent zurück.

UCO fraud pays off

The total amount of UCO consumed for biodiesel in the EU in 2019 was four times higher than the amount collected domestically in the European catering industry. So the bulk of it is imported from countries where Europe has no powers to investigate or prosecute operators who are tricked into fraudulently replacing UCO with cheaper and readily available bulk palm oil. DG Energy allows any biodiesel declared as a UCO to be counted as a UCO within the meaning of the REDII Directive, without the need for physical audits or inspections of supply chains and without any form of supply chain risk assessment. UCO fraud is financially rewarding, easy to commit, and largely free from interference from the authorities. The UCO fraud represents a huge missed opportunity for the European agricultural sector, which produces highly sustainable and effective biofuels and would have the capacity to produce more under a smart and fair regulatory system.

DG Energy does not publish data on the country of origin of the UCO consumed as biodiesel under the Renewable Energy Directive[i]. This data should be made available by law and could be made public. It would allow stakeholders to identify and assess situations where countries are listed as sources of UCO in quantities greater than their UCO collection infrastructure would allow in reality. To give an example, Malaysia is not only the world's

second largest producer of palm oil for biodiesel, but also a major supplier of UCO to the European biodiesel industry.

In contrast to DG Energy, the UK and Ireland publish the countries of origin of the biofuels they consume. Malaysia was the origin of 90 million litres of the UCO used in the UK and Ireland in 2019. If Malaysia is the source of similar quantities for the rest of Europe, then its total contribution to EU UCO demand is six or eight times its capacity for true UCO collection. The implications are clear: if regulation is weak, the UCO gold rush is likely to be as much about biodiesel made from palm oils as it is about real UCO. Whereby British, Irish and other EU consumers unknowingly fill up with palm oil in their diesel vehicles instead of burning real used cooking oil.

Advanced biofuels

The volume of advanced biofuels in the renewable energy mix increased by about 17 per cent in 2019 to just over one million tonnes of fossil fuel equivalents, contributing 0.3 per cent to transport energy in Europe and 5.3 per cent to renewables in the sector. The growth of advanced biofuels in 2019 was about seven times greater than the growth of renewable electricity in absolute terms, but it was three times lower than the growth of crop biofuels, five times lower than that of UCO and eight times lower than that of fossil fuels, which is counted as renewable by DG Energy under the multiplier hole.

Advanced biofuels are made from materials included in a list compiled by DG Energy – broadly referred to as residues and by-products from industry and agriculture – and have been heavily promoted by DG Energy over the last decade.

Apart from being counted twice, like UCO, there is an obligation for member states to increase consumption to 1.75 percent of energy demand in transport by 2030, which is about six times the current average. DG Energy has also provided around half a billion euros in funding to the sector over the last decade, in particular for the production of biofuels from materials such as straw, although the results have so far been limited in Eurostat data.

Over 90% of advanced biofuels are consumed in just five member states: Finland (36%), Sweden (23%), the UK (21%), the Netherlands (8%) and France (4%). In fact, most member states use little or no advanced biofuels, making their 2030 targets quite challenging.

The total increase of 150,000 tonnes in 2019 was accounted for by Finland (45%), the Netherlands (30%) and Sweden (15%), with a small increase also recorded in France and Germany. Virtually all advanced biofuels in Europe come from just two of the seventeen types allowed by the directive: industrial waste and forestry waste, with industrial waste accounting for over 80 per cent. Industrial waste is a broad category and it would be helpful

for policymakers if DG Energy would report in more detail on the raw materials and countries of origin involved.

Some stakeholders are concerned that without a reform of the Commission's regulatory responsibilities and procedures, the opportunities and incentives for UCO fraud will be transferred to advanced biofuels as the sector grows, with operators tempted to circumvent the scheme both outside and inside Europe.

Plant-based biofuels

According to the data, plant-based biofuels are by far the largest category of renewable energy in the EU's transport system. Over the past five years, their share of total transport energy has remained constant at 3.5 percent and accounted for around 60 percent of total renewable energy.

In terms of volume, plant-based biofuels grew by 3 percent annually over the five-year period, reaching over 11.5 million tonnes of fossil fuel equivalent in 2019. The low growth of crop biofuels is due to the Commission's decision to reduce their role in renewables, despite the fact that, in the case of domestic crop biofuels, they are demonstrably better for the climate than increased use of fossil fuels, are the most cost-effective way to reduce CO₂ emissions and have significant benefits for the rural economy and the food sector in Europe could be expanded.

For such an important contribution to climate change mitigation in transport, economic development in rural areas and the safety of protein feed, the data published by the Commission contain few details. There is no breakdown to distinguish between domestically produced bioenergy and imports, or between the different types of biomass used.

Critically, the Commission does not provide data on diesel made from palm oil, which it continues to allow under the legislation, despite the environmental damage and CO₂ emissions associated with the expansion of palm oil. In fact, the Commission allows low-cost palm oil to compete directly with highly sustainable, domestic plant biofuels from traceable European agriculture. The lack of data on raw materials and countries of origin is a serious omission, as it obscures the situation and prevents policymakers from making accurate assessments.

Biogas in transport

Only 1.6 per cent of renewable bioenergy in the EU transport system was generated by biogas in 2019, equivalent to 279,000 tonnes of fossil fuel equivalents or 0.1 per cent of total transport energy. The development of biogas, although starting from a low base, has been positive. With an annual increase of about 45 percent over the five-year period.

According to the data, seven countries were involved: Sweden (39%), the United Kingdom

(27%), Germany (20%) and the Netherlands (7%), with Denmark, Estonia and Finland together accounting for a further 6% in 2019. In the case of the Netherlands, all transport biogas was supplied via the natural gas network, while in the other six countries it was fed directly into the grid.

Italy also uses biogas in its transport system and has passed important legislation to promote biogas in transport, but has not yet provided consumption data for EUROSTAT. Biogas is considered by many energy experts to be a very effective means of increasing the share of advanced biofuels, as well as bioenergy and renewables in general. It can be easily produced from virtually any type of biomass and consumed directly as heat and electricity, distributed through the existing natural gas grid, or converted into electricity and distributed through the power grid. However, wider uptake would require a common EU certification system, alignment of national support schemes for production and consumption, and barrier-free cross-border access to these schemes. The current patchwork of incompatible national systems is a major obstacle to the development of the sector.

Electric cars

Renewable electricity in road transport accounted for just 0.03 percent of transport energy in 2019. This is an increase from 0.01 percent five years ago, but still a low base and far from making a significant contribution to the 10 percent renewable energy target in 2020. In terms of volume, renewable electricity on the road grew by the equivalent of 38,000 tons of fossil fuels in 2019, or enough to replace the fossil energy of about a hundred thousand conventional cars. The EU28's total fleet grew 30-fold – around 3 million EVs – over the same period, suggesting that renewable electricity still has a long way to go to influence the trend of fossil energy consumption in the sector.

Overall, the share of electricity from renewable energies in the transport sector, including rail transport, is around 0.6 percent of total transport energy over the five-year period up to 2020. The data show that renewable hydrogen and synthetic fuels have not yet contributed to the energy mix.

Outlook for 2030

In my view, it is crucial that the Commission stops including fossil fuels in its overall figures for renewables in the transport sector, as this has a highly distorting effect. In the interests of fraud prevention and better policy-making, it should indicate the countries of origin of biofuels, in particular for UCO use as fuel. It should report the types of biomass and the origin of plant-based biofuels, in particular in the case of palm oil diesel, and it should report the types of biomass and the origin of advanced biofuels so that policymakers can track and modulate the impact of their regulation. The data should be published within

three months of the end of the reporting period, rather than one year later, as is currently the case. In fact, the data should be published in quarterly cycles, as is the case in the UK. Even if 8 million tonnes of fossil fuels are counted as renewable, and one of the two million tonnes of palm oil diesel may be labelled as UCO, the data shows that the growth of total transport energy has been twice as fast as the growth of renewables over the past five years. Subtracting the inadequate fossil fuels, the growth of fossil fuels exceeds renewables by a factor of three to one over this period.

To steer things in the right direction, fossil fuel consumption, which is currently unrestricted, should be capped in 2022, and ideally, its share of transport energy should be reduced by a mandatory share every year, even if it is only one or two percent. For 2030, the European Commission has set a target of 24 percent renewable energy for the transport sector and a similar level of reduction in CO2 emissions. However, it is not yet clear how the current trends can be changed so radically. Massive measures must be taken to support the use of renewable fuels and electricity. Palm oil biodiesel and UCO fraud must be brought under control, multipliers must be abolished, as they are just another form of diversion from climate action, while distorting the policies and behaviour of member states. As I said, the reforms of the European Tax Directive of 2015 should be adopted immediately. Biogas and new biofuels must be drastically expanded. And to promote the contribution of sustainable European biofuels, which could easily double by 2030, policy measures should be put in place to make this possible.



THANK YOU FOR YOUR INTEREST



Sincerely, Bernd Ahlers

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