Shifting the RED towards cleaner transport fuels

T&E's position on the review of the Renewable Energy Directive

May 2021

Summary

The Renewable Energy Directive (RED) is about to be reviewed by the European Commission, as part of the 'Fit for 55' package planned in July. Until now, the RED has been mostly a tool used to incentivize biofuels blending, which created a heavy reliance on crop biofuels with negative environmental, social and climate impacts. Long-term decarbonisation scenarios now show that renewable electricity, and renewable hydrogen and synthetic fuels for some modes, will be the necessary fuels to reach full transport decarbonisation by 2050. The RED framework for transport fuels should adapt to this new reality and ensure the right incentives and safeguards are in place for these fuels, while limiting further the role of fuels from the combustion engine age - especially crop biofuels.

With this in mind, we recommend the European Commission to focus on the following elements when reviewing the transport provisions of the RED:

> Remove **crop biofuels** from the RED targets by 2030 at the latest. Phase-out high ILUC risk biofuels - palm and soy - by the end of 2021. Crop biofuels should also be excluded from FuelEU Maritime and Refuel Aviation regulations.

> Ensure that a **target for advanced renewable fuels** in transport is based on a robust impact assessment of the availability of sustainable advanced fuels and set at around 16%, not 24%.

> Establish a proper renewable fuels market, that offers a level-playing field for all advanced fuels in all EU member states, with a dedicated **credit mechanism for renewable electricity**. The mechanism will allow different fuel suppliers to trade renewable fuel credits and will ensure that they can meet their RED obligation in the most cost-efficient way, with other options than only biofuels blending. Crediting renewable electricity as a transport fuel can also provide a boost to the roll-out of public charging infrastructure for electric vehicles.

> Adopt effective **sustainability safeguards for hydrogen and electrofuels**, making the RED the sustainability framework for their use in all transport modes, including aviation and shipping.

> Targets in ReFuelEU (**Aviation)** and FuelEU (**Maritime)** must be closely coordinated and harmonised with the RED targets to avoid driving unsustainable volumes of alternative fuels.

> Ensure more robust sustainability criteria **for advanced biofuels** that take into account competing uses and other key principles such as cascading and sustainable residues removal rates,

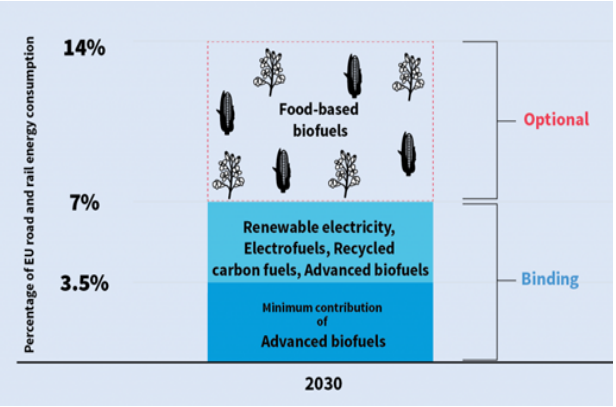
in line with the broader goals of the EU regarding circular economy. Revise Annex IX to remove problematic feedstocks (e.g. crude tall oil).
> Ensure **additional sustainability safeguards across all fuels**, including a harmonised GHG savings requirement for all fuels of at least 70% and binding criteria on social impacts.
> Ensure proper chain of custody for advanced biofuel feedstocks - and other alternative fuels - that ensures traceability.

1. Policy context

The Renewable Energy Directive (RED) is the main EU legislation that regulates the use of renewable fuels in Europe. Another law, the Fuel Quality Directive (FQD), regulates the quality of EU fuels as well as their carbon intensity. The 2009 RED set a target for the use of renewables in transport: by 2020, 10% of the total energy used in transport must be renewable. But this target has led to the use of unsustainable biofuels such as biodiesel from palm. As part of the so-called "Clean Energy Package", released in late 2016, the EU Commission published a proposal for the review of the RED and the EU legislators agreed on the final REDII in June 2018. As part of the 'Fit for 55' package, the European Commission is expected to release a new proposal for a review of the RED by June 2021.

Unlike the REDI, the REDII now foresees a bigger role for advanced fuels and sets the direction to move away from food-based biofuels - although not fast enough. There's also a specific treatment for biofuels which have significantly expanded into high carbon stock areas, so-called "high-ILUC risk biofuels". These will be phased out of the policy framework by 2030 at the latest. Several countries have already decided to phase palm oil much earlier, for example in 2021 (as well as soy in some cases).

Compared to the 2009 REDI, there is no longer a binding target for food-based biofuels. The RED requires a minimum share of 14% renewables in transport but then allows member states to bring this target down if they have a lower limit on food-based biofuels. The only binding target is for advanced fuels and is set at 7%. This is de facto allowing member states to end support for food-based biofuels. Fuel suppliers are the designated entities that need to deliver the target and countries can decide to implement it in the form of an energy mandate or a greenhouse gas reduction target (like in the FQD).

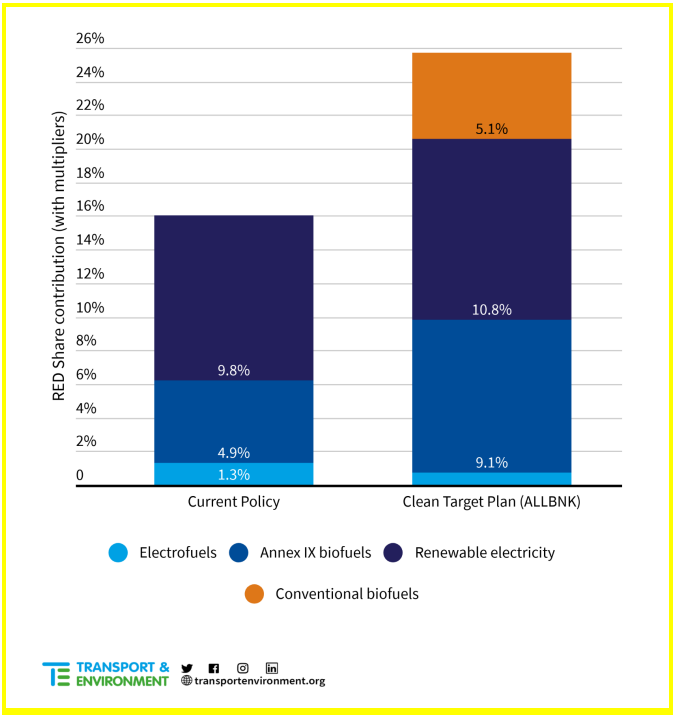


2. Setting a realistic target for renewable advanced fuels

2.1. Combining ambition and sustainability for a realistic assessment

Higher ambition in renewables for transport does not de facto mean higher quality and

sustainability of the fuels, nor emission reductions, especially when increased ambition still relies on a major share of crop biofuels. As part of its Climate Target Plan (CTP), the European Commission signalled its intention to increase the target for renewables in transport to 24% in 2030. Based on our modelling of two scenarios, we recommend not to set a target of 24%. Such a high target would most likely perpetuate the use of unsustainable biofuels in transport, overshadowing other cleaner sources of energy that the bloc needs in transport. Based on a scenario with enhanced policies compared to today, we recommend **setting it instead at around 16%** for renewable advanced fuels (excluding crop biofuels and fossil-based fuels such as blue hydrogen). Going beyond would require a substantial increase in ambition compared to the changes expected to be made by the Commision in the Clean Target Plan. Finally, fuels targets for aviation and shipping must be closely coordinated and harmonised with the RED targets to avoid driving unsustainable volumes of alternative fuels. The figure below outlines T&E's proposed target (left) compared to the Commission vision of the Clean Target Plan (right). More details here.



2.2. The RED should remain a tool for the uptake of renewable energy

It is crucial that the RED remains a policy tool that supports only renewable based technologies and doesn't support fossil based alternatives, often labelled as 'low carbon'. This is especially true for hydrogen produced from natural gas with CCS, which shouldn't be supported under the RED, like any other kind of non-renewable hydrogen. Similarly, 'recycled carbon fuels' are part of the current RED framework as an option for member states but should be removed from the framework. There are no sustainability criteria laid down for them yet - a series of delegated acts are due in 2021 outlining a minimum GHG savings threshold as well as a methodology to assess their GHG emissions.

2.3. Include flexibility mechanisms

On the question of **the type of target,** the RED already gives the possibility to meet the RED target by implementing a GHG-based approach. This is the case in Germany for example. If designed on the basis of robust GHG accounting which includes indirect emissions (ILUC emissions and displacement emissions of advanced biofuels), a supply-side GHG target is expected to deliver higher shares of the most sustainable fuels and a greater reduction in GHG emissions compared to an energy mandate. If the RED ends up not prescribing a GHG-based target, the possibility for member states to choose the GHG approach should remain. Because of the heavy reliance on crop biofuels, the carbon intensity of EU fuels hasn't decreased substantially since 2010. The EEA reports that in 2018, the average GHG intensity of transport fuels was only 2.1 % lower than in 2010, when taking into account ILUC impacts (and 3.7% without ILUC).

The RED should leave a certain **level of flexibility for member states** to restrict the eligibility of certain fuels, based for example on their true environmental and climate impacts, as well as competing uses in the countries in question. This can help in securing the highest level of sustainability and environmental integrity for the transport target. This is particularly important for crop biofuels. The fact that some member states decide to end the support to palm biofuels earlier than 2030 is good news for the environment and the climate. In parallel, it is crucial to ensure that member states keep flexibility in the level of renewables in transport they can sustainably reach. The current 14% target enables member states to reduce it to 7%, if they do not wish to support crop biofuels anymore. This element of flexibility should remain and new elements of flexibility could be added (e.g. reduced advanced biofuels target if national assessment doesn't provide certainty of robust environmental integrity, transfer mechanism between member states, etc.).

A final point relates to **energy efficiency**. Member States should strive to increase energy efficiency and reduce energy consumption in transport, to minimize the amount of alternative fuels needed in the sector. The RED currently takes into account energy efficiency measures indirectly. When transport (road & rail) energy demand reduces, the same volume of renewable fuels can be used to meet a higher percentage target. As part of the RED review, some new elements could be included to incorporate some stronger language on the importance of energy efficiency measures.

3. Preparing for an increased use of renewable electricity, hydrogen and e-fuels in transport

Until now, the RED has been used as a tool to increase the share of liquid alternatives to (fossil) oil. However, long-term decarbonisation scenarios show that renewable electricity, renewable hydrogen and synthetic fuels will be the necessary fuels to reach full decarbonisation by 2050. The RED framework for transport fuels should adapt to this new reality and ensure the right incentives and safeguards are in place for these fuels.

3.1. Enhancing the role of renewable electricity

The most recent sales figures of battery-electric vehicles clearly show that electromobility will grow significantly in importance by 2030, especially if CO2 standards for road vehicles will require more ambitious emission reductions. This new context makes clear that the role of renewable electricity in RED II needs to be upgraded during the current revision of the 2030 targets. Implementing RED II targets for transport with only biofuel blending mandates should no longer be possible. Because renewable electricity is not a drop-in fuel, **a system of tradable credits for renewable electricity** in particular, will be key to promote the use of renewable electricity in the transport sector. Such a credit mechanism needs to be introduced in all member states to enable fuel suppliers across the EU to comply with their targets using renewable electricity credits. This will establish a proper **renewable fuels market**, that offers a level-playing field for all advanced fuels in all EU member states.

A credit mechanism that includes renewable electricity is different from a subtarget. It will not mandate fuel suppliers to use renewable electricity, but create a level-playing field between renewable electricity supplied to EVs and blended biofuels. Such a system is already in place in the Netherlands, Germany and starting in France. **This credit mechanism would work together with the multiplier of 4** already in place in the RED for renewable electricity used for the direct use of renewable electricity in battery electric vehicles . This multiplier of 4 recognizes the higher efficiency of electric vehicles, compared to ICE vehicles. The revenues from such a credit mechanism will be helpful in rolling out charging infrastructure and complement actions under the AFID directive. For the EU27, revenues from selling renewable electricity credits to fuel suppliers could amount to EUR 5.9 billion annually. More details on the mechanism here.

Direct electrification is also becoming available - albeit to a more limited extent in shipping (e.g. ferries) and may even become viable in aviation (e.g. for very short flights, with few passengers, and where rail is not viable). Nevertheless in the interest of technology neutrality and facilitating new technology, the use of renewable electricity and green hydrogen should be credited under ReFuel EU initiatives for shipping and aviation and this revised Directive. It is crucial to ensure that biomass burning for electricity generation is not incentivized under the RED.

3.2. Robust safeguards and targeting of renewable hydrogen and synthetic fuels

The RED regulates the supply of hydrogen and synthetic fuels, under provisions for 'Renewable Fuels of Non-Biological Origin'. Several criteria need to be met for these fuels to deliver significant GHG savings and their use should be targeted at specific sectors, to ensure the highest energy efficiency.

3.2.1. Sustainability safeguards

The European Commission is about to release a delegated act on how to calculate the greenhouse gas savings of RFNBOs, to meet a 70% GHG savings threshold. It is crucial that the RED review keeps the requirement for **additional renewable electricity sources** to be used for RFNBO production, i.e.

not divert existing renewables away from being used in other sectors. To meet this requirement, a RFNBO producer with a grid connection should be able to demonstrate that a Power Purchase Agreement is in place for new and unsupported renewable electricity generation. Guarantees of Origin (GOs) shouldn't be allowed to demonstrate additionality. In addition to the GHG savings requirements, the RED should now include additional environmental and social criteria about **land use, water use and social impacts**. Principles such as the free, prior and informed consent of the local population, environmental impact assessments and transparency about the size of hydrogen/efuels production and their local impacts need to be required. More in a detailed briefing here.

T&E remains committed to the principle that RFNBOs should use CO2 captured from the air as the carbon-based feedstock. **Direct Air Capture (DAC)** of CO2 is the only source of carbon that is fully compatible with the EU's stated target of becoming a net-zero economy by 2050. To scale up the DAC technology and bring down its costs, a minimum quantity of DAC CO2 must be used from the start in the production of liquid efuels such as e-kerosene for aviation. Any project producing efuels that receives public support should be required to use a minimum share of 30% DAC from the start. This minimum share should increase over time to 100%.

The use of **imported renewable hydrogen and efuels** from third countries to meet the targets of the RED should only be allowed, if there are stringent sustainability criteria in place as well as mandatory certification procedures and effective test methods. These will need to be reinforced, compared to current certification requirements for biofuels. RFNBO imports into the EU should - at least initially - only be allowed, if they are produced with a direct connection to a renewable source, or from grids with a very low-carbon and non-biomass based electricity mix. The EU's framework on RFNBOs must explore how efuels exports can also help address the lack of energy access (if applicable) and the decarbonisation of the producing country's own economy. A win-win dynamic whereby the production of RFNBOs for export is combined with investments in the decarbonisation of the local economy should be incentivised. A scenario whereby the best renewables locations are used for RFNBO production while the local energy mix continues to rely on fossil fuels must be avoided at all cost. Decarbonising the hard-to-abate sectors in Europe by importing efuels, while complicating the decarbonisation efforts of the efuel exporting economies does little to address global emission levels.

'Biogenic' hydrogen, produced with biogas as a first feedstock, is not a sustainable, long-term decarbonisation option for transport. The limited amount of sustainable waste for biogas production should rather be targeted at displacing current uses of fossil gas, especially in heating. More here.

No inclusion of 'low carbon' hydrogen

The RED needs to remain a renewable framework and shouldn't open eligibility to 'low carbon' fuels such as hydrogen produced through steam methane reforming and Carbon Capture & Storage (CCS) - blue hydrogen. The 'low carbon' status of fossil hydrogen depends on a number of

optimistic assumptions about emissions throughout the full supply chain, in particular the issue of fugitive methane emissions and the capture rate of CO2. More generally, the assumption that this technology will be scaled up more quickly than renewable hydrogen is questionable: Despite huge amounts of public spending, CCS projects haven't really taken off in the EU. Even though its economics are problematic, CCS is a mature technology. Steam methane reforming is also a mature technology. As a result, there are no major cost reductions for blue hydrogen to be expected by 2030. This stands in sharp contrast with green hydrogen, where the cost of renewables and electrolysers is expected to fall substantially over the next decade. Prominent analysts like BNEF and the International Energy Agency foresee that green hydrogen will be cheaper than blue hydrogen by 2030, even when produced in the EU. Longer term, by 2050, green hydrogen may even be cheaper than grey hydrogen and even fossil gas.[1] Last but not least, if hydrogen is to mainly play a role as a fuel for aviation and shipping, it does not make a lot of environmental or economic sense to convert fossil gas into blue hydrogen, to later convert that hydrogen into liquid efuels - by re-adding a carbon to the hydrogen - to produce e.g. e-LNG or e-kerosene.

3.2.2. Targeting uses : aviation & shipping

Renewable hydrogen should be targeted at transport segments where direct electrification is not possible. This is in line with the strategy for sector integration published in July 2020, which recommends "*The use of renewable and low-carbon fuels, including hydrogen, for end-use applications where direct heating or electrification are not feasible, not efficient or have higher costs.*". As an example, if all trucks over 16 tonnes were battery electric by 2050, demand for renewable electricity would be 347 TWh in 2050. Running half of these trucks on fuel cells would increase renewable electricity demand to 506 TWh or a 37% difference[2]. Liquid efuels are even more energy intensive and should only be promoted for sectors where hydrogen or direct electrification are not feasible. Following this principle, the limited quantities of renewable hydrogen for transport should be targeted at **shipping** that cannot be electrified and for the production of efuels for **aviation**. Renewable hydrogen could also play a role in long-distance trucking for which the race between electric and hydrogen trucks is still on.

The RED framework regulates fuels supplied to the EU but it doesn't set different mandates for different transport modes. As a result, fuels supplied to the aviation and shipping sectors can be counted towards the RED target (with a multiplier of 1,2). This is why it is crucial that parallel initiatives for aviation & shipping - the ReFuelEU (Aviation) and FuelEU (Maritime) include specific market signals and targets for the use of hydrogen/ammonia in shipping and efuels in aviation. These frameworks will be the relevant regulatory tools to channel the use of hydrogen in the sectors that will need it most.

Following the same logic as for the electricity multiplier, a **multiplier** of 2 for renewable hydrogen use in a fuel cell vehicle would be justified. Without these multipliers, the contribution of renewable

[1] BNEF (2021, April) *1H 2021 Hydrogen Levelized Cost Update*. Similar conclusion in IEA (2021, April) *Net Zero by 2050. A Roadmap for the Global Energy Sector*, retrieved from https://www.iea.org/reports/net-zero-by-2050

[2] https://www.transportenvironment.org/sites/te/files/publications/2020_12_Briefing_feasibility_study_renewables_decarbonisation.pdf

electricity and hydrogen to decarbonising transport would remain underappreciated. No multiplier should be applied to liquid or gaseous synthetic efuels under the RED.

Fuels should not be credited under CO2 standards

Adding credits for advanced and synthetic fuels into the EU vehicle CO2 standards has been suggested by the oil and gas industry for a number of years now. But car, van and truck CO2 standards work because they regulate what vehicle manufacturers have control over, i.e. powertrains. Fuel suppliers on the other hand are covered by the RED and FQD, where their remit - the fuel production and supply - is addressed. Adding fuel credits into the vehicle standards is a cumbersome approach, open to loopholes and double counting. In addition, zero emission cars such as battery electric vehicles (BEVs) emit zero CO2 (or pollution) from their exhausts. They are also on average 3 times better on lifecycle CO2 emissions than diesel or petrol cars. Cars driven on biofuels or synthetic fuels emit similar levels of (tailpipe) CO2 and pollution as conventional cars. With e-mobility now a vital part of the industrial strategy of many carmakers, fuel credits are a Trojan horse that would perpetuate the internal combustion engines and derail the automotive transformation currently underway. We thus recommend that the RED (and the FQD) remain the only tools to support and credit alternative advanced fuels supplied to road transport. More information in a dedicated briefing here.

4. Fixing the loopholes of the EU biofuels rules

It is now clear that the EU fuels market is relying mainly on high value food crops blended in fossil fuels for meeting renewable targets. It is crucial that this toxic reliance comes to an end. At the other end of the spectrum, advanced biofuels are being promoted but stricter definitions and stronger safeguards are needed.

4.1. Phasing-out crop biofuels

Following many years of debates, the RED adopted a specific status for crop biofuels:

- In 2015, the 'ILUC reform' obliged member states to limit at 7% the energy share of crop biofuels to meet the 10% target. Countries can always decide to have a lower share.
- In 2018, the REDII fixes the limit for each member state at 2020 levels, with only 1% flexibility and always a maximum of 7%. Countries can always decide to have a lower share and can differentiate between crop biodiesel and crop ethanol.
- In its recent Climate Target Plan, the European Commission confirms its intention to 'minimize' the share of crop biofuels.

4.1.1. Strengthening measures on all crop biofuels

Biofuels produced from food commodities make the majority of the alternative fuels in Europe. The market is dominated by biodiesel (80%) produced mainly from virgin vegetable oils (e.g. rapeseed,

palm oil). Crop biofuels have been associated with Indirect Land Use Change (ILUC). This land use impact has been officially recognised in the RED framework[3] and subsequently used by agencies, like the EEA, when providing estimates on the carbon intensity of transport fuels[4]. Several models have been developed to estimate ILUC emissions and the latest EU model is the Globiom quantification study[5]. It demonstrates that demand for biofuels is projected to cause significant additional greenhouse gas emissions. When adding direct emissions and estimates for indirect impacts, all crop biodiesel appears to be worse for the climate than fossil diesel, palm oil being the highest emitting biofuels - with three times the emissions of fossil diesel.

Apart from land use impacts, the increased demand for food commodities for biofuels perpetuates an agricultural model based on intensive agriculture, contributing to the alarming decline in biodiversity and intensifying the pressure on land access worldwide, increasing the risk of land grabbing in developing countries. More generally, land could be used for other uses, including carbon sequestration. This could happen through reforestation or by letting the land revert to forest or grassland through a natural process, which could sequester more carbon per hectare than biofuels production[6]. Finally, most of the biofuels are currently used as small 'blends' with fossil diesel and petrol (with exceptions, like Hydrotreated Vegetable Oils). This entails a continued reliance on fossil diesel and petrol, when the EU is actually moving towards truly zero-emission vehicles - battery electric and fuel cell vehicles.

Due to the negative climate, environmental and social impacts, we call on the EU Commission to phase out all crop based biofuels by 2030. Furthermore, crop based biodiesel produced from vegetable oils should be phased out earlier, in 2025.

4.1.2. Earlier phase-out of palm & soy biodiesel

The REDII provides a specific treatment for the most unsustainable biofuels and sets a phase-out date for "*high ILUC risk biofuels for which a significant expansion onto high carbon stock areas is observed*". Biofuels recognised as such will be frozen and eventually phased out by 2030, meaning that they can't count towards the renewables targets. In order to determine which feedstocks are considered high risk, in 2019 , the Commission presented a delegated act on 'high and low ILUC risk' biofuels, with a methodology to identify the risky feedstocks. It recognizes that palm oil has had a significant expansion on high carbon stock areas and classifies it as a high deforestation risk feedstock. But some palm oil biofuels can escape from the phase-out if they can qualify as "low-ILUC risk", by meeting several specific criteria. In 2019, we have shown in a briefing why the 'low ILUC risk' exception should be removed and the same concerns remain valid today.

We have also constantly argued for soy biofuels to be classified 'high ILUC risk' as well. Our latest study, conducted by consultancy Cerulogy, finds that Europe's use of soy biodiesel could increase 2 to 4 times by 2030 compared to what we use today causing deforestation of an area greater than the

[3] Annex VIII, RED.
[4] https://www.eea.europa.eu/data-and-maps/figures/average-greenhouse-gas-intensity-of
[5] https://www.transportenvironment.org/publications/globiom-basis-biofuel-policy-post-2020
[6] https://wwfint.awsassets.panda.org/downloads/eu_bioenergy_policy___wwf_briefing_paper___final_4.pdf

size of London. Since the adoption of the delegated act, several member states have already adopted rules to end support for palm oil biofuels earlier than 2030 (France in 2021, Italy in 2023, Portugal in 2022, Denmark in 2021, etc.). Some countries also tackle soy in their decisions (France, Italy).
For all the above reasons, we recommend that the EU Commission brings the phase-out of high ILUC risk biofuels (including palm and soy, and the by-products) forward, by 2021 or 2022 latest.

4.2. Advanced biofuels

The RED currently defines 'advanced biofuels' as **biofuels from Annex IX part A**. Several feedstocks on the list are problematic in terms of their competing uses and environmental impacts. That's why we recommend removing high risk feedstocks, for example crude tall oil, crude glycerine, pre-commercial thinnings, pulp wood, tree stumps and energy crops grown on dedicated land. This is not an exhaustive list and additional materials should be taken out of the annex IX list, on the basis of their competing uses, indirect emissions, the waste hierarchy and biodiversity impacts. We recommend to focus on EU sourced feedstocks, to avoid heavy reliance on imports and delaying decarbonisation of other regions of the world. If, on the basis of an impact assessment, the feedstocks are found to cause market distortion, these should not receive any special treatment under the RED. Opening the definition of advanced biofuels to "all biofuels that are not crops" would be too broad and risks including many unsustainable feedstocks that shouldn't be incentivized, like PFAD. More details here.

Advanced biofuels from part A have a dedicated target under the overall transport target, set at 3,5%, and can be double counted under that framework. Sustainable feedstocks sourced in Europe are unlikely to represent a high share of transport energy. The current target of 3.5% (or 1.75% in real energy terms) is already going to be challenging to meet, as currently the share is very low - 0,9% in 2019 (SHARES data, with multiplier 2).

The contribution of Used Cooking Oil and animal fats to the advanced biofuels (and RES-T targets) is constrained by the limited availability of these feedstocks. The share of part B biofuels in transport energy was 2% in 2019 (SHARES data, includes UCO & animal fat, with multiplier of 2). The EU is currently highly dependent on imported UCO (more than half of the UCO used in 2019 for biodiesel in Europe was imported). While the EU UCO collection and biofuel production capacity has some room to grow, the use of part B feedstocks must be monitored, to avoid driving unsustainable practices. It is for example crucial to scrutinise the origin of UCO more closely and to build a more rigorous chain of custody. Some markets outside of the EU are existing markets for UCO as animal feed and import to the EU will lead to substitution and indirect impacts. Countries should avoid going beyond the soft cap of 1.7% for part B feedstocks currently in the RED. More information on UCO in a recent T&E briefing.

4.3. Sustainability criteria and GHG thresholds

As mentioned before, crop biofuels shouldn't be allowed under the RED targets in 2030.
Sustainability criteria need to be fit for the new challenges posed by advanced biofuels. This means adding new binding criteria for removal rates for agricultural residues for biofuel feedstock to

ensure soil quality and avoid negative environmental impacts. This should be based on the specific characteristics at national/regional level, with a strong verification system. This also means limiting the type of forest biomass eligible to exclude primary woody biomass. The RED should also be harmonised with the developments of EU legislation on forest protection and deforestation of products placed in the EU market and with the EU biodiversity strategy. Finally, the RED should enable the adoption of additional sustainability criteria at national level, also for biofuels (article 29).

In terms of GHG savings, the current RED framework sets different **GHG savings thresholds**, depending on the starting dates of installations. The GHG savings from all advanced biofuels must be at least 70% from January 2021 onward, regardless of when the installations started operating. In the worst case scenario, whereby crop biofuels are not entirely excluded from the 2030 target, the GHG savings requirement should go up to 80%, to compensate for the lack of accounting of ILUC emissions.

In addition, **the social impacts of biofuels** demand and production are not included in the REDII. Binding criteria should be developed in the RED, not only for biofuels but for all fuels, especially when produced outside the EU. This should include the respect of human and labour rights, as well as a requirement for Free Prior and Informed Consent of local populations. The Commission recently presented a proposal for a battery law and requires companies to follow OECD guidelines to ensure human rights' protection[7]. It is crucial to ensure that this question is not left out of the fuels debate.

5. Conclusions

Based on the below, we recommend that decision-makers include the following measures:

> Remove **crop biofuels** from the RED targets by 2030 at the latest. Phase-out high ILUC risk biofuels - palm and soy - by the end of 2021. Crop biofuels should also be excluded from FuelEU Maritime and Refuel Aviation regulations.
> Ensure that a **target for advanced renewable fuels** in transport is based on a robust impact assessment of the availability of sustainable advanced fuels and set at around 16%, not 24%.
> Establish a proper renewable fuels market, that offers a level-playing field for all advanced fuels in all EU member states, with a dedicated **credit mechanism for renewable electricity**. The mechanism will allow different fuel suppliers to trade renewable fuel credits and will ensure that they can meet their RED obligation in the most cost-efficient way, with other options than only biofuels blending. Crediting renewable electricity as a transport fuel can also provide a boost to the roll-out of public charging infrastructure for electric vehicles.
> Adopt effective **sustainability safeguards for hydrogen and electrofuels**, making the RED the sustainability framework for their use in all transport modes, including aviation and shipping.

7 https://www.transportenvironment.org/sites/te/files/Proposal_for_a_Regulation_on_batteries_and_waste_batteries.pdf

> Targets in ReFuelEU (**Aviation)** and FuelEU (**Maritime)** must be closely coordinated and harmonised with the RED targets to avoid driving unsustainable volumes of alternative fuels.
> Ensure more robust sustainability criteria **for advanced biofuels** that take into account competing uses and other key principles such as cascading and sustainable residues removal rates, in line with the broader goals of the EU regarding circular economy. Revise Annex IX to remove problematic feedstocks (e.g. crude tall oil).
> Ensure **additional sustainability safeguards across all fuels**, including a harmonised GHG savings requirement for all fuels of at least 70% and binding criteria on social impacts.
> Ensure proper chain of custody for advanced biofuel feedstocks - and other alternative fuels - that ensures traceability.

Further information

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