



Sustainable and Renewable Ethanol made in Europe for Europe

ePURE's position on the proposal COM(2012) 595 for a directive amending the Fuel Quality Directive (FQD) and the directive on the promotion of the use of energy from renewable sources (RED)

European policy-makers have an opportunity to pursue a positive agenda for growth and jobs in Europe's low carbon bio-economy. The refined EU framework for biofuels should:

1. Set post-2020 greenhouse gas emissions reduction targets

To build and maintain investor confidence, the EU should set GHG emissions reduction targets beyond 2020 (at least until 2030) and clearly indicate that future growth in the biofuels market should come from the best performing biofuels in terms of GHG performance. Conventional and advanced renewable ethanol will play a crucial role in achieving real GHG emissions reductions in the transport sector in the EU. Therefore, biofuels made from food/feed crops which result in net positive greenhouse gas savings should be allowed to count towards targets in the period after 2020.

2. Confirm the EU's ambition for the use of biofuels in transport

The RED sets out that "Each Member State shall ensure that the share of energy from renewable sources in all forms of transport in 2020 is at least 10 % of the final consumption of energy in transport in that Member State." ePURE endorses and welcomes the Commission's view that this target should be maintained.

3. Set a separate target of 8% conventional renewable ethanol in petrol

To ensure diversity of supply of renewable transport fuels, the EU needs both renewable ethanol for petrol and biodiesel. The proposed limit on conventional biofuels can be supplied entirely from existing biodiesel production capacity. ePURE proposes a target of at least 10% renewable energy in petrol, with 8% renewable energy in petrol derived from conventional renewable ethanol.¹ The remaining 2% would be filled by advanced renewable ethanol (see point 4). This would ensure delivery of the twin objectives of securing existing investments in sustainable conventional renewable ethanol, whilst transitioning the technology to process ligno-cellulosic feedstock, such as straw and wood waste.²

4. Set a separate target of at least 2% for advanced biofuels

The refined directive should ensure that biofuels made from the feedstock listed in the proposed Annex IX³ to the RED, contribute at least 2% of the final consumption of energy in transport without double or quadruple counting. Since many of the feedstocks listed in the proposed Annex IX are used by other sectors of the economy, certification and chain of custody rules and procedures should apply equally as to feedstock for biofuels made from sugars, starches and virgin vegetable oils to avoid distortion and malpractice in feedstock markets.

Renewable ethanol – Made in Europe

Homegrown European ethanol made from cereals and sugar adds approximately as much food into the food chain as it withdraws. It also lowers the price of oil, which is a significant factor in the price of food. Moreover, it has been scientifically demonstrated that EU-produced ethanol does not reduce the global land area available for food production. For all of these reasons, any cap on EU-produced conventional renewable ethanol cannot be justified by food versus fuel arguments.⁴

Demand for protein is rising faster than crop yields and therefore causes land use change. The EU is one of the world's largest importers of protein-rich soya meal from soya beans. EU ethanol production co-produces high protein, GMO-free animal feed that replaces imports of soya meal. EU cereals produce a similar amount of protein per hectare as soya beans as well as producing significant fermentable starch and sugars. Consequently, cultivating cereals for ethanol in the EU does not materially increase overall requirements for land for protein production in the world.

ePURE welcomes the proposal to continue to improve the analysis on ILUC and arrive at a minimum of scientific consensus on the model to be used. To date the analysis on ILUC merely confirms that ethanol makes a strong contribution to the decarbonisation of road transport.

¹ According to a joint study of the European Commission (DG JRC) and the European auto and oil industries, existing EU bioethanol capacity is equal to at least 6% of the expected petrol market by 2020. Imports (on average 20-25% of the EU market) need to be added to this 6%.

² Several Member States have successfully implemented a sub-target for petrol. Additional justifications for a target for petrol include: a) it ensures higher aggregate GHG savings, b) it is the best guarantee that biofuel is consumed in every litre of petrol.

³ Feedstocks whose contribution shall be double or quadruple counted, inter alia, including algae, straw, bagasse, nut shells, husks, cobs, used cooking oil, and non-food cellulosic material.

⁴ Impact of protein concentrate co-products on the net land requirement for biofuel production in Europe. 2009. GCB Bioenergy, 1 (5): 346-359. Opportunities for the avoidance of land use change through substitution of soya bean meals and cereals in European livestock diets with bioethanol co-products. 2010. GCB Bioenergy, 3 (2): 158-170. FAO Biofuel Co-products as Livestock Feed 2012, chapter 2 An outlook on EU biofuel production and its implications for the animal feed industry (13-33).



Questions & Answers

Q: Why do you want to separate renewable ethanol from other renewable sources in transport fuel?

There are 2 main reasons for a separate target for renewable ethanol in petrol. Firstly, the average GHG emissions saving of renewable ethanol is well above the 35% threshold. The emerging science on ILUC confirms that renewable ethanol makes a strong contribution to the decarbonisation of road transport. To guarantee that the EU benefits from these emissions reductions a separate target for gasoline is necessary. Secondly, setting a target for renewable ethanol is in line with current practice: most Member States have adopted specific renewable ethanol and biodiesel targets, which ensure that both types of biofuels are used, thereby contributing to the diversification of the supply of our transport fuels.

Q: Why do we need more than a 5% market share for conventional ethanol?

First of all, the ethanol sector is not convinced that a 5% market share is guaranteed. In theory the entire 5% market could be filled with biodiesel. Moreover, setting an upper limit of 5% for conventional renewable ethanol would require the sector to shrink. Today, EU renewable ethanol capacity (5 million tonnes of oil equivalent (mtoe)) amounts to more than 6% of the expected petrol market by 2020 (66 mtoe). The EU has an opportunity to avoid factory closures and drive further growth in the European renewable ethanol industry by setting a target of 8% for the consumption of conventional renewable ethanol from sugars and starch crops. A target of 8% is also more realistic knowing that a substantial part of today's EU ethanol market is supplied by imports. Finally, if we want second-generation ethanol to become a reality, we need a strong first-generation sector to invest in it.

Q: Why do you support a target for petrol rather than ILUC factors?

Our proposal does not intend to replace the so-called ILUC factors for a target for petrol. We are speaking about two different issues. On one hand, ePURE agrees with the Commission's assessment that today's ILUC modelling contains too many uncertainties and therefore more scientific thinking is required. Even though the 'best available science' is relatively good for renewable ethanol, ePURE agrees with the Commission that the model lacks maturity. On the other hand, we are calling on decision makers to set a specific target of 8% of conventional renewable ethanol in petrol. This will help to attract the necessary investments in a market that can provide Europe's economy with even better pathways to de-carbonise the transport sector by drastically reducing GHG emissions and improving the efficiency of petrol engines.

Q: Why is multiple counting for second generation not effective and why would a 2% target be better?

The double counting mechanism is intended to give Member States an incentive to invest and develop advanced biofuels. In practice, however, double counting has not spurred innovation in truly innovative and capital-intensive technologies, such as ligno-cellulosic ethanol. Instead, the mechanism has increased the use of biodiesel from used cooking oil or animal fats, which neither requires technological innovation nor does it broaden the feedstock basis. Even used cooking oil, if not strictly controlled, still increases the demand for vegetable oils such as palm or soya. To stimulate innovation, the EU should set a specific target for advanced biofuels of 2%. Such a target combined with a longer-term perspective of the EU's climate policy will provide investors and innovators with clarity and a guaranteed market, which is necessary given the high level of investment needed.

Q: Why is the long-term perspective of the ILUC proposal so important for ePURE?

A long-term perspective is important for two reasons. Firstly, renewable ethanol is a promising industry that is a stepping-stone for the EU's bio-economy, including, for example, green chemicals. To attract the necessary investments, policy-makers need to establish and maintain a predictable and stable policy framework for the next few decades. This is particularly the case as investments are made for the long term with a typical renewable ethanol plant taking nearly 20 years to depreciate. Secondly, a healthy conventional renewable ethanol industry is necessary for the development of advanced biofuels. It is conventional renewable ethanol producers that will be making the very high investments required for this new technology.

Q: How can renewable ethanol provide fuel and food at the same time?

A basic raw material for making renewable ethanol is sugar. The sugar can come directly from plants that contain sugar such as sugar beet or sugar cane or from starch, which is converted to sugar. In Europe mainly sugar beet that is not used for human consumption and cereals grown for animal feed are used for the production of renewable ethanol. Once the sugars are used, the remaining co-product is a cake full of (enriched) GMO-free proteins that is used as animal feed, thereby replacing meal of imported soy. This is how renewable ethanol production delivers both food and fuel.

Made in Europe. ePURE is proud to be producing sustainable and renewable biofuels in Europe and looks forward to working with EU policy-makers and stakeholders to define the appropriate framework for growth and jobs in Europe's low carbon bio-economy.

Further information

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