European Biofuels Technology Platform (EBTP) Comments on the European Commission proposal to review the RED and FQD

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Background

The EBTP has been reflecting on the European Commission's proposal to review the RED and FQD. An iLUC working group was created for the purpose of putting together a more general position for the EBTP[2]. The premise of this reflection is founded on the need to find a solution to the iLUC debate whilst ensuring that biofuels technology and science evolves and continues to be relevant to the EU's objectives to, improve energy security, fulfill GHG emissions reduction goals and ensure continued innovation in the creation of a sustainable bio economy.

On 17 October 2012, the European Commission released a proposal for a revision of the European biofuels policy[1]. Four major changes have been proposed upon which we would like to comment:

- Incorporation of biofuels produced from food crops (cereals, sugar and vegetable oil) would be limited to 5% in terms of energy content out of the target of 10% of renewable energy in transport by 2020.
- Reporting of indirect land use changes (iLUC) by using fixed factors.
- Strengthening of sustainability criteria (all new biofuel plants would have to reach immediately a minimum greenhouse gas savings of 60 % compared to fossil fuels emissions).
- Introduction of additional support for biofuels produced from non-food feedstocks by weighting differently their contribution towards the 10% renewable energy target.

The EBTP has been closely following the iLUC policy and public discussion since its inception. Although the EBTP understands and supports the need for sustainable biofuels, the EBTP continues to question the effectiveness of policy measures, which only target the biofuels industry. In a contribution to the public debate on iLUC in 2011[2], EBTP expressed its reservation on the effectiveness of policy measures that would only target the biofuels industry. The EBTP realizes that this proposal reflects a political compromise on indirect land use change and the use of biofuels but its members are not convinced that changing the current target on biofuels produced from food crops is the most effective way to ensure more sustainable conventional biofuels are indeed produced and a greater share of more advanced biofuels penetrate the market. Although the companies and organizations who participate in the EBTP welcome the additional attention toward biofuels produced from non food biomass[3], it is important that the EC's proposal supports the deployment of advanced biofuels without hindering the competitiveness of existing sustainable biofuels based on food crops. To achieve this goal, it is necessary to set up a strategic vision for the European biofuels sector, coherent with its potential contribution to European energy security, economic growth and climate change mitigation.

1 Proposal for a Directive of the European Parliament and of the Council amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources (COM(2012) 595 final).

2 Read EBTP's contribution to the iLUC debate: http://www.biofuelstp.eu/downloads/papers/paper_iluc_ebtp_oct_11.pdf

3 In the proposal of the European Commission, biofuels produced from non-food biomass would have a reserved market share of 5% of energy consumed in the transport sector, including administrative shadow effect of multiple counting.

Capitalizing on Conventional Biofuels[4]

A clear and predictable policy and regulatory framework for 2020 and post 2020 is absolutely necessary to industrialize advanced biofuels pathways (refer to definition box below). Investment decisions can only be taken based on robust assumptions within a long term perspective.

In its strategic research agenda, EBTP proposed the following definition:

"advanced biofuels are characterized either by a wider range of feedstocks (including cellulosic feedstocks from residual/ waste biomass, dedicated energy crops as well as new concepts (e.g. algae, etc) or by enhanced fuel properties of the end product, when compared to current biofuels (ethanol and esters), or are chemically closer or identical to fossil fuels, and hence allow the use of current fuel infrastructures[5] (pipe, storage, engines) without technical limitation. Advanced biofuels can be produced via thermochemical or biological process steps or a combination of both. They are often referred to as second generation biofuels".

In addition, it should however be emphasized that compatibility between fuel standards and vehicles should be a key feature for conventional and advanced biofuels[5].

As it currently stands, the new proposal falls short of bringing a stable framework to the biofuels sector and investors. Additional uncertainties to an already precarious framework have been introduced by the new proposal, including the possible reviews of RED and FQD directives in 2014, and the risk of inclusion of iLUC factors, which remain scientifically and politically controversial, into the sustainability criteria of biofuels after 2020. A possible abolition of support schemes after 2020 would at the same time jeopardize the future of existing biofuels units and corresponding jobs in Europe as well as impede investments in advanced biofuels projects.

The conventional biofuels industry must be seen as a basis for advanced biofuels industrialization as technical, operational and financial synergies exist with advanced pathways. In this respect, it is advisable to keep a healthy sustainable conventional biofuels industry and set a limitation of mandates more compatible with already existing production/blending levels in all EU member states[6], therefore, facilitating the transition to advanced biofuels.

Keep a balanced approach on iLUC and biofuels sustainability

Setting a limit on conventional biofuels produced would already reduce the risk of iLUC significantly. Since the iLUC effect is a marginal (additional) effect, grandfathering of existing production units and allowing their possible retrofit to other molecule productions would be coherent with this political approach.

It is also important to note, that given that food crops and land are not dedicated to biofuels exclusively, it might be counterproductive to introduce excessive sustainability criteria only for biofuels. Creaming off the most sustainable feedstocks for biofuels production does not improve the overall sustainability of agriculture. A 50 % GHG saving contribution appears to be a sensitive safeguard and can provide a significant contribution to climate change mitigation. On the contrary, a more stringent GHG saving threshold might reduce the overall contribution of biofuels due to a lower availability of such products.

Any biofuels policy revision could have significant impact on both the Fuel Quality Directive GHG emission saving targets and the incorporation of 10% of renewable energy in transport energy

4 In this document, conventional biofuels refers to ethanol from starch and sugar crops and biodiesel from vegetable oil (esters or hydrotreated vegetable oil). They are often referred to as first generation biofuels.

5 Nevertheless, some types of biofuels (e.g. DME, liquefied or compressed biomethane for instance,…) under development may require specific power trains and/or specific infrastructure. Initially they will probably address above all niche markets and captive vehicle fleets.

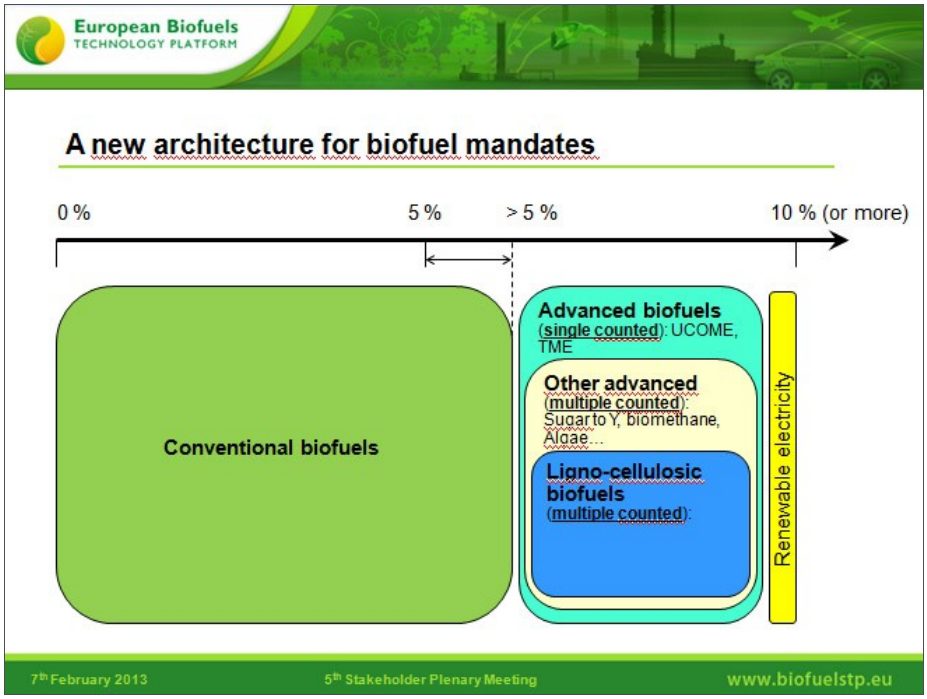
6 Several member states are well ahead of the 5 % limit. France, for instance, has a target of 7% energy since 2010.

consumption by 2020. The achievability of RED and FQD targets must be carefully assessed in light of the proposed changes. In addition, it is important to remember that any policy change must take into account the singularity of the European fuel market in terms of diesel/gasoline demand to ensure that biofuels continue to effectively contribute to Europe's security of energy supply.

A fair promotion of advanced biofuels pathways[7]

EBTP stakeholders support the EC's intention to accelerate the deployment of advanced biofuels in Europe. A stable and ambitious framework is needed to attract the necessary investments in advanced biorefineries and drive the development of advanced biofuels from non-food biomass. A recast of the renewable energy framework to maximize the contribution of these biofuels should be considered as follows:

Figure 1: Illustration of EBTP recommendations for an improved biofuels regulatory framework



- The existing double counting provision has been used to spur deployment of new biofuels pathways that use alternative feedstocks. However, since the intention of double counting was to help those pathways to become competitive (RED Recital 87), the extra-incentive in the form of double counting appears no longer necessary for these pathways that appear to be already mature and competitive with conventional biofuels such as biodiesel from used cooking oil or tallow. Still they would keep a dedicated subtarget. Multiple counting should be targeted and earmarked for innovative technologies with a high implementation potential[8] and upfront development and demonstration costs. When a technology matures, multiple counting should be phased out in a smooth transition allowing building on learning curve and economies of scale.

7 Advanced biofuels pathways with highest industrialization potential in Europe have been listed in the strategic research agenda (see http://www.biofuelstp.eu/srasdd/SRA_2010_update_web.pdf page 27).

8 Read also EBTP's contribution to this topic: http://www.biofuelstp.eu/policy/policy-toolkit-ebtp-06-10-2011.pdf

- Biofuels policy leverages innovation in biotechnologies and bio-based chemistry. Conventional sugar is the natural substrate to biotechnologies and a bridge to cellulosic sugars. Sugar to Y technologies also contributes to the diversification of feedstock supply. Sugar-to-advanced biofuels pathways should therefore be kept in the advanced biofuels sub-target.
- When it comes to the most innovative biofuels pathways, return on experience has showed that multiple counting should be complemented by dedicated sub-targets to bring support and market visibility. The opportunity of setting a nested sub-target[9] for ligno-cellulosic biofuels within an "advanced biofuels" sub-target should be assessed. Such a design of the mandates would bring better long term perspectives to investors and a fair level of competition to the market.
- Implementation measures to incentivize advanced biofuels shall be designed to avoid fraud and to bring transparency to investors. Having a European-wide, harmonized, **fraud proof scheme of implementation** of the multiple counting or nested sub-targets measures is a basic need for the market. Checking the eligibility of plants according to their technology and their biomass supply, and setting a tracking system of each biofuels consignment traded in Europe is a necessary counterpart of the support schemes. Alternatively, the allocation of this support to specific plants, using well targeted technologies, with an assessment of their feedstock supply, through a kind of European tender, could bring the industry more confidence in those products.

In conclusion, the EBTP believes that some amendments are urgently needed, and recommends the following:

- Develop a long term vision and a stable regulatory framework for the European advanced biofuels industry, placing at its heart the contribution it makes to European energy security, restoring economic growth and employment opportunity, and climate change mitigation.
- Set achievable targets for other biofuels for 2020 and post 2020[10]. Such target would have to include nested sub-targets for advanced biofuels as shown in Figure 1.
- Amend the multiple counting to target advanced innovative biofuels. The multiple counting should indeed reflect the potential and the complexity of the technology. Once pathways are mature enough, this support should be phased out.
- Implementation measures should support innovation and avoid fraud. The list of eligible feedstocks shall be coherent, harmonized across the EU, and avoid grey zones.
- Additional European support measures should be considered for new advanced biofuels production plants to foster investments in the upscale. In particular: grants, loan guarantees and other relevant public private funding mechanisms.
- Consider setting a higher limit for conventional biofuels to allow for a viable transition to advanced biofuels and recalculate iLUC factors accordingly, taking into account only the deviation to 5%. Biofuels production units would be grandfathered for their historical production pattern whereas additional production would have to report iLUC. In any case, retrofitting existing biofuels shall be allowed without iLUC penalties (unchanged biomass supply).

9 The ligno-cellulosic biofuels target would contribute to the non-food target. Other advanced biofuels would be eligible for the non-food target. Hydrotreated vegetable oils are in the "biofuels from food crops" compartment. The US renewable fuels standard (RFS2) is built with several, similar, nested mandates.

10 The strategic research agenda of the EBTP brings a sound framework to identify best promising advanced biofuels pathways: http://www.biofuelstp.eu/srasdd/SRA_2010_update_web.pdf

EBTP background and contacts

The mission of the European Biofuels Technology Platform (EBTP) is to contribute to the development of cost-competitive, world-class biofuels technologies, to the creation of a healthy biofuels industry and to accelerate the deployment of sustainable biofuels in the European Union through a process of guidance, prioritisation and promotion of research, technology development and industrial demonstration.

The European Biofuels Technology Platform brings together a wide range of stakeholders from industry, academia, research and civil society, and is supervised by a Steering Committee. The activities are carried out by the members of four Working Groups, with this document being prepared by members of WG4 on Policy and Sustainability. Member State representation is provided through the EC Steering Group for Strategic Energy Technologies, and liaison with national biofuels platforms and bioenergy associations. The EBTP is supported by a Secretariat that received partial financial support from the European Commission under FP7 Grant Agreement Number 241269 (until end of March 2013).

For further information, please contact **secretariat@biofuelstp.eu** or refer to the EBTP website **www.biofuelstp.eu**