

Creating post 2020 policy framework for investments in advanced biofuels – critical step to achieve EU 2030 climate and energy goals

Advanced biofuels can play a key role in achieving EU's 2030 climate policy goals. In order to unlock this potential and secure necessary investments, LSB calls on the EU decision-makers to:

- Create a stable and consistent 2030 framework for investments in the advanced biofuels sector. Establishing 0.5% binding sub-target for advanced biofuels in 2020 is the first important step to give the right signal to the market.
- Continue the FQD with specific GHG emissions reduction targets beyond 2020.
- Set a binding, ambitious and realistic target for advanced biofuels up to 2030 with a clear trajectory.

Why do we need a binding advanced biofuels target?

- To decarbonise the transport sector in a cost-effective and sustainable manner, technology developments of advanced renewable fuels going beyond R&D are necessary, in line with the Commission's proposal for limiting emissions from indirect land-use change¹.
- Without an adequate sub-target for advanced biofuels for 2030, there will be no strong outlook for the demand. That will not only halt investments in new domestic production capacity, but it will also prevent vital research and development investments. Moreover, investments in R&D already made by industry and the EC will be wasted and new investments in advanced biofuels will go to other regions.
- Without sector specific target (with overall GHG, RES and EE targets) the GHG emission reductions in the transport sector are projected to range from **12 to 20%** in 2030 in comparison with 2005, which is the lowest emission reduction range of all sectors² and against the EC proposals in which "emissions from sectors outside the EU ETS (including transport) would need to be cut by 30% below the 2005 level."³ The share of renewables in the transport sector will be between 12 and 14%. If we do not invest in advanced

¹ Commission staff working document Impact Assessment accompanying document A Policy framework for climate and energy in the period from 2020 to 2030

² idem

³ 2030 climate and energy goals for a competitive, secure and low-carbon EU economy European Commission - IP/14/54 22/01/2014

biofuels and scale-up in time then Europe will face a gap to achieve the 27% RES target in 2030 in a cost-efficient way.

- According to the Commission's assessments, the share of advanced biofuels in total biofuels would increase much faster in a scenario with enabling settings in 2030 compared to a scenario without the enabling setting. "A new industry would emerge with vertical integration ranging from agriculture, industrial-scale collection and pre-treatment, bio-refineries with new conversion technologies, product standardization and commercialisation"⁴.
- For advanced biofuels to cover 0.50% of the transport needs by 2020, 1.500 ktoe would be required. If we assume that, the entire target will be achieved through domestic production (no imports) this means that roughly 10 to 20 plants with a capacity of 100 to 200 ktoe would need to be built, which is a realistic and achievable target until 2020.

Advanced biofuels opportunities

Growth and jobs

- EU is a world leader in advanced biofuels technologies today.
- In the scenario outlined by the "Wasted" report, advanced biofuels will bring 15 bill € revenues to rural economy and up to 300,000 new jobs by 2030⁵.

Sustainability

- Advanced biofuels from wastes and residues can deliver between 85% and 95% of GHG emissions savings (RED default values).
- Significant low ILUC potential and no competition with food and feed production⁶.
- Wastes and residues have the potential to supply 16 % of road transport fuel in 2030⁷.
- Advanced biofuels can enable strong emissions reduction in transport activities for which electrification is not possible (as long distance truck haulage, ships and aviation).

Innovation

- EU companies are at the forefront of research in advanced biofuels technology. Most European key players in advanced biofuels technology are currently inaugurating their first of its kind flagships, as a result of years of breakthrough innovation activity.
- Innovation in new generation bio-energy feedstock (basically lignocellulosic crops) at large scale can bring significant advantages to the EU agricultural sector already in the 2020-2030 decade.

⁴ Commission staff working document (...)

⁵ WASTED Europe's Untapped Resource, 2014

⁶ Ecofys 2013

⁷ WASTED Europe's Untapped Resource, 2014

Security of supply

- Renewables target for transport can contribute to lowering EU fuel import costs and in a context of increasing dependence on imports of fossil fuels, can improve security of supply⁸. Today the EU still depends to 95% on fossil fuels for transport, most of which are imported from 3rd countries. The Ukraine crisis shows once again that the EU needs to find alternatives. As regards transport, the avoided costs of imported fuels, replaced by biofuels, are estimated to amount to EUR 7.6 billion in 2010 (European Commission).
- Wastes and lignocellulosic feedstock are cheaper than the sugar and oil crops; processing costs will decrease with technology development. According to IEA, for advanced biofuels the main factor is capital costs (35% to 50%), followed by feedstock (25% to 40%). In the longer term, reduced feedstock cost volatility will be a vital advantage for advanced biofuels that use lignocellulosic biomass sourced from energy crops, waste and residues.⁹
- Neither technology, nor feedstock costs are prohibitive factors in adopting an advanced biofuel target. Work carried out by the IEA (technology roadmap) shows that advanced biofuels are likely to become cost-competitive with fossil fuels in the medium term. Economic parity may be achieved even faster and earlier if externalities such as GHG emissions are factored in.¹⁰



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⁸ Commission staff working document (...)

⁹ OECD IEA, Technology Roadmap Biofuels for Transport, 2011

¹⁰ Commission staff working document (...)



The Leaders of Sustainable Biofuels

The LSB is a group composed by the Chief Executive Officers of Leading European biofuel producers and European airlines. The initiative aims at supporting the development of second generation biofuels in Europe. The leaders of Clariant, British Airways, Biochemtex, BTG, Chemrec, Dong Energy, St1 Biofuels Oy and UPM and are joining forces to ensure the market uptake of advanced sustainable biofuels by all transport sectors.

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