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Bioethanol fuel in the European Union

Bioethanol: Renewable and clean fuel

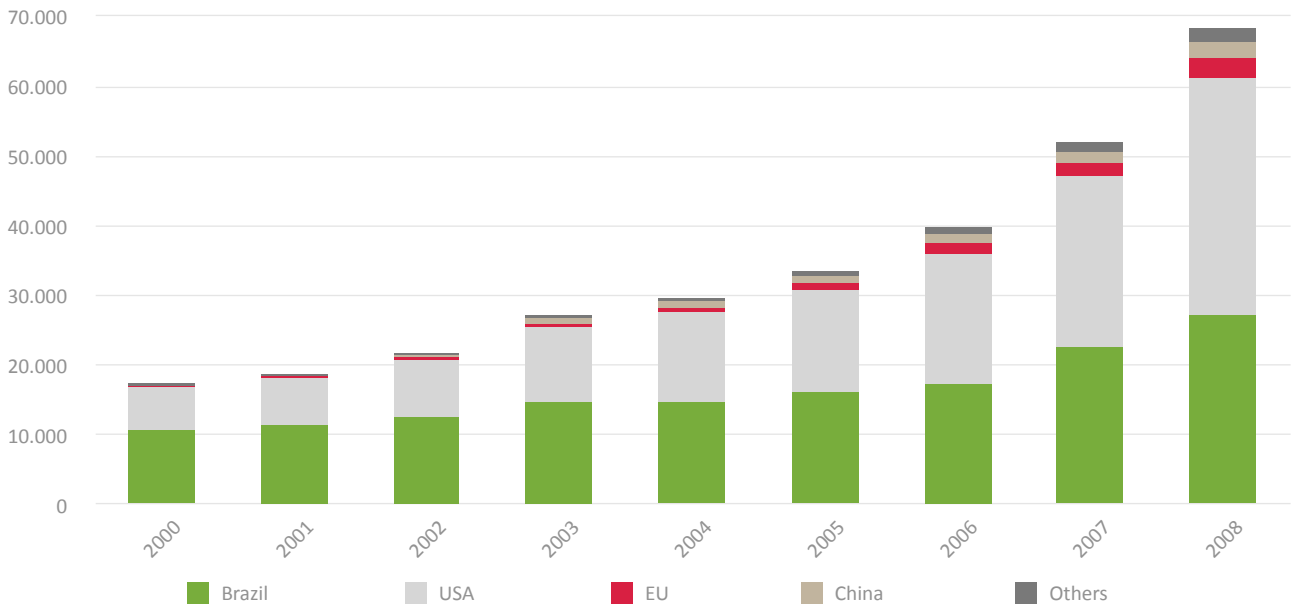
Bioethanol fuel is a renewable transport fuel manufactured through the fermentation of sugars. Today, this is done by accessing sugars directly (like sugar cane and beet) or by breaking down starch in grains such as wheat, rye, barley or maize into sugar. In the EU, bioethanol is mainly produced from grains, with wheat as the dominant feedstock. Many experiments are now taking place – and several demonstration plants are being built - using cellulosic material as feedstock. This material will come mainly from dedicated energy crops. Bioethanol is a renewable alternative to fossil derived gasoline and is the leading biofuel globally. Depending on the raw material used, **CO_2 emission savings** can be up to 95% compared with fossil fuel. In particular, bioethanol made from lignocellulose material shows very promising results, and even bioethanol fuel made from wheat can achieve up to 69% emission saving.[1]

Growing EU production

The European bioethanol sector was a slow starter compared to other regions such as Brazil or the USA. It took almost 10 years to reach a significant size and increase production from 60 million litres in 1993 to 525 million litres in 2004. The subsequent years brought a strong growth. In 2005 and 2006 the growth levels were well over 70%. After a moderate growth in 2007, when production increased by 13%, production reached another spike in 2008 and increased by 56%, to 2.8 billion litres. Compared to the USA (34 billion litres in 2008) and Brazil (27 billion litres in 2008), the EU bioethanol fuel sector is still small. The top five EU producers of bioethanol are France, Germany and Spain, followed by Poland and Hungary. The total installed production capacity has now reached 6 billion litres. Another 2 billion litres are under construction. By 2011 the EU production capacity should reach approximately 8 billion litres.

Global Ethanol Production for fuel (2000-2008)

million litres



[1] Renewable Energy Directive, Typical default values for biofuel pathways, Annex V.

Increasing consumption

In 2008, the EU consumed an estimated total of 3.5 billion litres of fuel ethanol. This increased consumption is the direct result of Member States efforts to meet the Biofuels targets. A substantial part of this consumption was imported. The top six consumers were Germany, France, Sweden, the Netherlands, Spain and Poland.

More and more imports

2008 was also a record year in terms of imports. Total imports of bioethanol (fuel and non-fuel) have reached an estimated 1.9 billion litres in 2008, increasing by 600 million litres compared to 2007. Almost 1.5 billion litres came from Brazil. Thereof 700 million litres, so half of all the Brazilian imports have been used for the fuel sector. Some argue that the EU market is not sufficiently open to imports and that too many trade barriers exist. There is indeed an import tariff, but it is not applied to those countries that need market access such as ACP,[2] EBA[3] and GSP+[4] countries. It should be noted that these countries provide only 20% of all imported ethanol. In 2008, almost 80% of all imports came from 1 single country – Brazil. Therefore, it cannot realistically be argued that there are trade barriers to ethanol imports into the EU.

Loopholes in the system

Trade between jurisdictions is best when undertaken in an open, transparent and balanced manner. Almost half of all imports from Brazil enter the European Union labeled as a chemical, whereas it should logically be entering the EU as "fuel ethanol". These import flows cannot be traced back directly in the EUROSTAT data.[5] In addition, ethanol entering the EU labeled as a chemical contributes 7 times less import duty than it would if identified as "fuel ethanol". The loss of income for the Community is substantial. This unfair situation could be prevented if there a customs classification for ethanol used as a fuel existed. Unfortunately, such a classification still does not exist even though the ethanol fuel market has grown 600 times in volume compared to 1993.

[2] African, Caribbean and Pacific Group of States.

[3] Everything but arms provides the 49 least developed countries (LDC) duty free access to the EU for all products, except arms and ammunition.

[4] Generalised System of Preferences (GSP) - GSP+ is the EU's special incentive arrangement for sustainable development and good governance, which offers additional tariff reductions to support vulnerable developing countries.

[5] If ethanol is mixed with chemicals under customs rules it can be classified as a chemical. It then receives a classification code that is given to a number of other goods as well. With such a single classification code EUROSTAT data can no longer differentiate by good. If in this form ethanol is used for fuel purpose it can not be traced back. Hence a flaw appears in the EU statistics.

In a nutshell

- Bioethanol fuel produced in Europe can already achieve GHG emission savings up to 70%;
- The EU industry has more than enough production capacity to supply the EU market;
- To allow provide fairness to the market and to prevent loss of Community income, a customs classification of ethanol for fuel is necessary.

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Founded in 2005, eBIO serves as the voice of the European bioethanol fuel industry, providing advocacy, authoritative analysis and industry data to its members, the European Institutions, strategic partners and the media. With over 60 members, eBIO pursues the promotion of European policies and initiatives that lead to increased production and use of bioethanol fuel. The association regularly participates in educational activities to increase public awareness of renewable fuels and the positive contribution they make to European energy independence, climate change and the wider economy.