

**Progress report on the promotion of biofuels
in Belgium in 2006**

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1. Current situation

Flemish Region

- In 2005, Flemish Minister Peeters and Minister Leterme ordered a prospective study on the potential of biofuels ("Potentials study of biofuels in the Flemish Region). The study gives an overview of the current use of fossil fuels + biofuels and the potential of internal production of renewable energy sources and the consumption of biofuels in the next 15 years.
- Several demonstration projects for renewable energy sources and energy consumption started in 2005:
 - Start of an information and demonstration platform (cultivation, processing, commercialization);
 - Evaluation of several aspects about the processing of rapeseed (harvest, cleaning, storage, pressing, filtering, ...);
 - Valorization of the byproducts of rapeseed (rapeseed cake) in the animal sector;
 - Heating with biofuels: practical experience.
- In the winter of 2005, the Ministry of Agriculture published a large information brochure to inform the farmers about the wide range of possibilities of rapeseed¹. On a trade fair for professionals, there was a demonstration of a rapeseed press and farmers had several opportunities to ask questions and talk about their main concerns.
- Two Ministerial Decrees relating to the support scheme for energy crops and for crops grown on set aside land for the production of non-food material were published in January 2006.
- A new support scheme for the re-introduction of rapeseed in the Flemish Region is currently being drafted and will be integrated in the programming document of rural development 2007-2013. This comprehensive plan will be sent to the Commission for approval.
- In 2005, the VLIF (Flemish agricultural investment fund) regulations were adapted so that investments in the production and consumption of biofuels can be supported for 30%.
- As from April 2006, rapeseed oil can be brought on the market exempt from excise duty. This rapeseed oil must be used by public transport companies or must be sold directly from farmer to final user.
- A brochure about the legal and administrative duties and rights of farmers as rapeseed oil producers was published in June 2006.
- Various sessions at different places to inform farmers about the opportunities of rapeseed production were organized in 2005 and will be organized again in 2006.
- The Department of Agriculture set up several internal and external (with stakeholders) working parties about biofuels. These working parties had several meetings in 2005 and will have more meetings in 2006. During these meetings practical problems about legislation, controls, processing, commercialization,... are discussed.
- Several information days about production and use of first and second-generation biofuels will be organized in 2006.

Walloon Region

- In Section 1.2.6 (« Safeguarding the future of Wallonia's agriculture ») of the Walloon Government's « Contract for the future with the Walloons », the Government states that it will explore new technological avenues, such as energy crops (e.g. biofuels, bioenergy).
- This commitment is repeated in section 5.9.3 « Towards a rational and solidary energy policy » through the development of energy from alternative and renewable sources by supporting the production of biofuels for transport and heating.
- In July 2004, the Walloon Government appointed a Biofuels facilitator for a renewable two-year term (Mr Jean-Marc JOSSART of the asbl ValBiom). This mission was renewed until 2008. The role of the facilitator is to:
 - inform the public, the authorities, businesses, consumers, farmers ... about biofuels;
 - support project managers;

¹ For more information: www.farmersandcitizens.be
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- identify the technical, legal and economic obstacles to the development of this option.
- In January 2005, the Walloon Government initiated a Research Syndicate to study the economic feasibility of producing biofuels in Wallonia, mainly from regional agricultural production. The technical part of the study was carried out by the management-consulting firm Value Added Europe for the regional Minister of Economy and Employment. The two options - biodiesel and ethanol – were scrutinized; two business plans (BioWanze S.A., Biofuel S.A.) were presented to the Walloon Government before the end of June 2005. In 2006, 3 potential projects were presented : BioWanze S.A., Neochim S.A. (Seneffe), Biofuel S.A (Hermalle-sous-Huy). The business plan on bioethanol is ready and the Raffinerie Tirlemontoise has announced that it is willing to build a 300,000 m³ plant at Wanze.
- The business plan on rapeseed has been prepared in conjunction with the SCAM agricultural cooperative.
- The AGRICOL project, proposed by UCL and a farmer, was supported by the Walloon Region. The objective is to study the best practices for the agricultural farmers and groupings to produce, starting from own resources, a combustible oil of quality, which can be sold to the consumers (support with the short chain).

The Brussels Capital Region

- The Brussels Region Environment Minister wishes to encourage the use/purchase of clean(er) vehicles on a larger scale and to introduce measures intended to create a market for these vehicles/technologies. The use of biofuels is one of the options currently under study to identify those that offer the best potential for combating air pollution. Moreover, a study is under way to determine whether used oils produced in the Brussels Region can be recovered in biofuel production units and whether this could open new interesting vistas for the Region.
- The town of Brussels installs its own tanks for storage for biofuels. The biofuels are intended to supply its fleet of vehicles of service. This initiative aims at reducing the environmental impacts related to the fossil fuels.

2. Promotion of biofuels in the sectors of transport.

2.2. Legislative framework for the federal promotional measures.

2.2.1. FPS² of Finance

Directive 2003/96/EC has been transposed, as far as federal fiscal measures are concerned, by the Royal Decree of 29 February 2004 (published in the Belgisch Staatsblad/Moniteur belge of 5 March 2004), by Section 18 of the Planning Act of 27 December 2004 (BS/Mb of 31 December 2004), by the Planning Act of 11 July 2005 (BS/Mb of 12 July 2005), by the Planning Act of 27 December 2005 (BS/Mb of 30 December 2005) and by the Act of 10 June 2006 (BS/Mb of 16 June 2006) (see Annex 1)

The Act of 10 June 2006 concerning biofuels reduces the excise duties on diesel oil containing at least 3.37 % biodiesel and on gasoline containing at least 7 % ethanol of non-chemical nature. Furthermore, this Act allows for the use of rapeseed oil and motor fuels containing a higher percentage of biofuels by the regional public transport companies exempt from excise duties.

A call for tenders will be used to market:

1) biodiesel

- 286, 000 m³ starting from 1 November 2006 until 30 September 2007

² Federal Public Service (the former Government Department)
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- 475, 000 m3 starting from 1 October 2007 until 31 December 2008
- 380,000 m3 per year until 31 December 2012
- 284, 000 m3 starting from 1 January 2013 until 30 September 2013

2) ethanol

- 48,000 m3 starting from 1 October 2007 until 31 December 2007
- 250, 000 m3 per year until 31 December 2012
- 187, 500 m3 starting from 1 January 2013 until 30 September 2013

The Royal Decree of 10 March 2006 fixes the general conditions for the exemption of excise duties for pure rapeseed GN-code 1514 and fuels with a higher limit values as permitted by the European standard EN 590 and EN 228. This decree was published in the Belgisch Staatsblad/Moniteur belge of 20 March 2006 (see Annex 2).

2.2.2. FPS of Health, Food Chain Safety and Environment and FPS of Economy, SMEs, Self-employed and Energy

Article 4 of the Royal Decree of 4 march 2005 concerning the names and characteristics of biofuels and other renewable fuels for motor vehicles and off-road vehicles fixes the level of the national indicative targets, as defined in directive 2003/30/EC, for the period 2005 - 2010.

For Belgium, the minimum proportion of biofuels and other renewable fuels set as national indicative target is 2 % calculated on the basis of energy content of all petrol and diesel for transport purposes placed on the Belgian market by 31 December 2005. This percentage will be increased yearly by 0.75 % to (reach) 5.75 % by 31 December 2010.

Furthermore, this Royal Decree lays down the conditions under which biofuels used as motor fuels can be put on the Belgian market. Royal Decree stipulates that biofuels could only be put on the market in case a European standard for biofuels exists.

This decree³ has been recently complemented with other provisions to allow biofuels for which no European or Belgian standard exist can be put on the market in two specific cases, namely in case they are used in a specific, well-defined project (captive fleets) or in case they are sold by the farmer directly to the end consumer. As far as the sales of pure rapeseed oil by farmers is concerned, the Royal Decree, in its amended version, fixes conditions concerning the procedure for obtaining a permission to put the product on the market, the product quality, the quality control and the information provided to the end customer. This new version of Royal Decree will be published in due course.

Others:

Study on the transposition and implementation of Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels for transport was carried out by Pricewaterhouse Coopers. The aim of this study carried out by Pricewaterhouse Coopers is to identify relevant specific policy measures in support of the promotion of biofuels or other renewable fuels in accordance with directive 2003/30/EC. On the basis of an analysis of the biofuel policy in other EU member states, a long list of policy measures was established and discussed with stakeholders with the aim of selecting the most relevant policy measures for further development, taking into account the economic, regulatory and technical factors. This exercise lead to the analysis of the key features, including the design options, the implementation considerations and – where relevant – the legal basis for the adoption of the policy measure.

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or

The study and the analysis of the selection of policy measures is available on the website of the Environment Directorate-General.⁴

2.2.3. PPS⁵ for Science Policy

- Research project: Liquid Biofuels in Belgium in a global bioenergy context (LIBIOFUELS⁶). Objectives: The overall objective is to analyse the ecological, micro-economic and socio-economic sustainability of the most promising large-scale biomass routes in Belgium. The project will include:
 - a full assessment on short and medium term possibilities of biofuels for transport;
 - a comparison of the potential and sustainability of the chains in Belgium versus imported biomass, liquid biofuels or intermediate products;
 - a comparison of liquid biofuel chains with bio-CHP and bioelectricity chains.

The final report is available.

- To promote the development of Industrial Biotechnology in Belgium, the Minister for Science Policy officially established the Belgian Integrated Platform for Industrial Biotechnology (BIPIB) in January 2005. A number of tasks were defined, particularly the definition of a long-term strategy (both in terms of policy and research) for developing industrial biotechnology in Belgium. The definition of such a strategy has been the subject of three separate BIPIB working groups:
 - Biomass supply
 - Bioprocesses and bioproducts
 - Bio-energy.

The recommendations of the BIPIB (some of which are directly linked to biofuels) have been summed up in a document available on the web site of the PPS Science Policy⁷

2.3. Legislative framework for the regional promotional measures.

Flemish Region

Support from the agriculture policy domain

Farm crops for biofuels may, for the time being, be grown under various support schemes. In addition to a premium, a small supplemental support not exceeding € 45 per ha may be granted for energy crops.

On fallow land, subsidies (between € 290 and 425 per ha) may be activated but energy support is excluded. There is also a ceiling of one million soy equivalents on by-products intended for animal feed on the harvest of oleaginous seeds (rapeseed, soybeans and sunflower) for non-food set aside (Blair House agreement with the USA). In this case, less than 1 million set aside may be used, depending on the hectare yield and on the type of seed. So far, the ceiling has not been exceeded but should this be the case, it is up to the EU to prove that the by-products are not used as animal feed.

A 30 % support is granted for installations and material that at company level are specifically required for the production and possible use of renewable fuels (biomass). In this situation, crops are indeed grown (rapeseed, elephant grass, short rotation coppice, ...), which possibly requires mechanization and some installations. As an investment (in the order of €80,000) would be unjustified for individual companies, it will normally be restricted to cooperative farms.

⁴ <http://www.chiild.be/nl/Procedures/BIPIB> and <http://www.kibipand.be/nl/Procedures/BIPIB>

⁵ Planning Public Services (the former Government Department)

⁶ <http://www.marsden.be/nl/over-landbouw-voor-transport-voedsel-energie>

⁷ http://www.belgium.be/belgium/belgium_center/2005/03/30/BIPIB_en.pdf

Support is granted starting from an investment of € 6,250. Converting tractors to run on biofuels cannot be financially supported by the VLIF (Flemish Agriculture Investment Fund) as costs are relatively low (some € 3,000). However, such a scheme may get support in the context of a larger investment project.

The VLIF does support heating installations. The level of support is determined by the nature of the fuel used and is higher for natural gas fired installations; this was accounted for by the fact that the use of liquid and solid fuels for heating purposes (extra heavy fuel oil in particular) is partly responsible for acidification (SO₂ and NO_x emissions) and, in addition, for local soot problems. Natural gas heating poses fewer problems. The larger support for natural gas installations (including combined heat and power [CHP] plants), therefore, had nothing to do with energy production but rather with improving air quality. In principle, CHP installations running on biofuels now qualify for a subsidy of 20 %.

Support from the energy policy domain

Companies making environmentally friendly investments in the Flemish Region are eligible for an ecological premium. The (standard) percentages are 35 % for SMEs and 25 % for big companies. The absolute ceiling for the support of renewable energy is currently € 3.6 million. These percentages are calculated on the so-called 'accepted investment costs' for a technology.

The accepted investment costs for a technology are determined by:

- the extra investments in relation to the standard technology;
- any possible economies and profits during the first five years of use (which are deducted from the extra investment costs).
- the environmental performance indicator, i.e. a factor (between 0.6 and 1) that takes due account of the environmental advantage of the technology.

To determine the ecological premium, a distinction should be made between:

- the production of biofuels
- the use of biofuels.

According to the decision of the European Commission (State aid N334/2005 - point 28), investments in the production of biofuels cannot longer get any state aid .

The use of biofuels is mentioned as 'technology 398' and the relevant costs amount to 80 %. Consequently, the use of biofuels (the production of heat from biofuels) qualifies for an ecological premium.

Policy area of mobility: 2004-2009

In the policy note on Mobility, a number of pilot projects on alternative diesel fuels are defined, including pure vegetable oil and biodiesel. "De Lijn" (public transport company in Flanders and part of Brussels), must play a pioneering role in this field.

Climate Policy Plan of Flanders

In the Climate Policy Plan of Flanders 2006-2012 several projects for the stimulation of biofuels are defined:

- i. From 2006, De Lijn (public transport company in Flanders and part of Brussels) will use 5% biodiesel in the busses for public transport. They will also test the use of 100% pure plant oil. If the evaluation of this test is positive, up to 70 busses will drive on 100% pure plant oil.
- ii. In the local mobility plans, more attention will be given to result-based commitments. This will encourage the use of biofuels in the municipal fleet of vehicles.

- iii. The Government of Flanders promotes the production of energy crops. The promotion includes an extensive distribution of information with brochures, information and education days, demonstration projects and information stands at agriculture exhibitions.

Walloon Region

Support to the agricultural policy domain

The Commission grants aid in the context of its Common Agricultural Policy (CAP). The Walloon region has appointed a biofuels facilitator, Mr Jean-Marc Jossart.

The ASBL Valbiom is active in the sector of non-food biomass processing. Its activities include the biomass energy chain and the renewable raw materials chain. It works together with representatives of the agricultural sector, the administration and politicians. In addition, it follows up on the following projects:

- **FARR-Wal** (agriculture and renewable resources chains in Wallonia)
- **TriCoF** (use of rapeseed trituration by-products on farms)
- **AGRICOL** (reaching high quality rapeseed oil through cold pressed units)

Support to the energy policy domain⁸

Strictly speaking, so far no specific measures for promoting the use of biofuels have been taken. The reason being that there has been no steady offer pending detaxation measures. However, plant-derived fuels, particularly the oils option, qualify for support in the context of aid provided to businesses and to public bodies in particular. The most promising opening in the market is combined heat and power (CHP).

This aid is provided throughout the whole course of the project

1° Preparatory study: AMURE⁹ for businesses, AGW¹⁰ of 30 May 2002; UREBA¹¹ for public buildings, AGW of 28 May 2003. 50 % rate, 10% bonus on certain conditions.

2° Investments: Public sector: UREBA (rate under revision) and private sector: EXPA legislation:

- Decree of 11 March 2004
- Order of 2 December 2004

The implementing circular letter is being finalised.

3° Electricity production: Green certificates: CHP system burning liquid fuels.

4° Tax deduction on investments.

Support to research and development

- Over the past few years, the Walloon Region has not funded any technological research into biofuels proper, such as ethanol and biodiesel, since production processes are beyond the scope of technological research. By contrast, the Walloon Region is funding research into the production of hydrogen from biomass, which is considered a biofuel; it is used to operate fuel cells.
- The Walloon Region's R&D funding over the last years related to the gasification of biomass (gas generators and CHP: 8 projects, € 4 000 000), the combustion of biomass in boilers (1 project, € 300 000) and biomethanisation (2 projects, € 730 000).

⁸ To learn more: www.federa.be/wallonie/energie and www.federa.be

⁹ AMURE : improving energy efficiency and promotion of more rational energy use in the private sector.

¹⁰ AGW : Decree of the Walloon Government

¹¹ UREBA: studies regarding the energy performance of buildings

Support to communication actions

- Round-table of 30 and 31 May 2006 (“Les biocarburants tracent leur chemin”); biobreak (break engineered to run on biofuels).
- Publication and dissemination of a booklet “ Le point sur les biocarburants en Belgique”

The Brussels Capital Region

- The Government Agreement (July 2004¹²) states that the feasibility of an increased use of clean vehicles will be studied (particularly by making use of biofuels). By 2008, the public bodies of the Brussels Region, for example, should at least 20% have clean vehicles in their fleets. Vehicles using biofuels are among the cleanest (3 July 2003. – Order of the government of the Brussels Capital Region on the introduction of clean vehicles in the fleets of regional public bodies and the institutions under their authority).
- With regard to the identification of the flow of used vegetable oils and their ultimate use in biodiesel after esterification, it should be noted that the IBGE¹³ has decided to (have) the recovery of the Brussels accumulation of frying oils and fats (from industry, hotels and restaurants,...) analyse(d) starting from the obligation to take back some wastes for recovery or disposal (Order of the Government of the Brussels Capital Region of 18 July 2002).

2.4. Legislative framework for informing the public.

The Royal Decree¹⁴ which fixes the additional procedures to be followed in order to put non-standardised biofuels used as motor fuel on the Belgian market foresees some information obligations toward the end consumers.

The procedure applies in particular for pure rapeseed oils sold by farmers directly to the end consumer. The information obligations include the labelling at the private pump and the distribution of a leaflet to the customer. The leaflet on pure rapeseed oil used as motor fuel highlights the environmental benefits of this fuel, but equally warns the end consumer of the need to adapt the vehicle and of the possible other implications (such as the warranty provided by the car manufacturer). The leaflet contains the recommendation to follow at the pumps only that respect the conditions of this Royal Decree.

As the content of biofuels mixed with diesel and gasoline will not exceed the levels provided for in EU standards EN 590 and EN 228, no specific labelling / information for biodiesel / bio ethanol is to be established.

¹² « Respirer en ville », page 55-§d.

¹³ Institut Bruxellois pour la Gestion de l’Environnement – Brussels Environmental Management Institute

¹⁴ to be published

3. Overall sales of transport fuels and share of biofuels and other renewable biofuels.

3.1. Development of transport fuels in Belgium between 2002 and 2006

Source: Customs and Excise, Department of Finance.

Fuel	2002 m ³	2003 m ³	2004 m ³	2005 m ³
Withlead substitute petrol	4 694	5 565	3 996	3 426
Unleaded petrol	2 891 803	2 863 295	2 679 068	2 402 287
Diesel	6 899 146	7 404 000	7 547 582	7 467 747
Total	9 795 643	10 272 860	10 230 649	9 873 460

3.2. Amounts of transport biofuel marketed in 2006

The volumes are known: 380 000 m³ for biodiesel starting on 1 November 2006 and 250 000 m³ per year for ethanol starting on 1 October 2007.

A number of large production units are planned and will be built following the outcome of the call for tenders. The first biodiesel production sites will start production in the autumn of 2006.

3.3. National biomass/biofuel production in 2006

3.3.1. For transport

On 1 October 2006, no biofuels were available on the market.

3.3.2. For other purposes than transport

Flemish Region

See Table in section 4.2.2

Walloon Region

See Table in section 4.2.2

Brussels Capital Region

See Table in section 4.2.2

4. Novel perspectives

4.1. Industrial developments

Flemish Region: Several companies announce that they will start the production of biofuels:

- Group Tormans will set up a subsidiary undertaking in Geel for the production of biodiesel with a capacity of 300,000 litres in 2008, to be raised to 3 million in 2015; investment in the first phase: 2,5 million euros
- Cargill, Bioro and Vanden Avenne Izegem have entered into a joint venture to build a biodiesel plant in Gent with a capacity of 200,000 tons.
- Oleon will start at the end of 2006 with the production of 95,000 ton biodiesel/yr in Ertvelde
- Proviron will set up a biodiesel plant with a capacity of 100,000 tons/yr in Ostend;
- Dow Haltermann will start a production of 100,000 tons/yr of biodiesel in Antwerp;
- Alco Bio Fuel will produce bioethanol, capacity 3 x 80,000 tons; an investment of € 50 million in Gent
- Tate & Lyle invest in a production plant for 400,000 hectolitre of bioethanol/year in Aalst

- Total Belgium invest in their depot in Antwerp so that they are ready to distribute biofuels
- Green Energy Creations opened the first pure rapeseed oil filling station in Gent
- Flanders Biofuels (Gistel) will produce biodiesel, green electricity and green heat; an investment of € 10 million
- Ineos will set up a biodiesel plant in Antwerp
- Others

Walloon Region:

- At Wanze, the Tirlémontoise refinery has announced the construction of a bioethanol unit on the river Meuse, in the vicinity of a sugar refinery and a cereal unit. It should be operational in 2007 and have a production capacity of 300,000 m³ (approximately 240,000 tons), involving an investment of € 245 million, including the building of a biomass boiler.
- At Feluy, a biodiesel production unit will start operation in the autumn of 2006, with a capacity of 200 000 tons and an investment of 10 million €.
- Other project: Hermalle-sous-Huy, capacity of 100 000 tons at an investment of 27 million €.

4.2. Changes in biomass/biofuel production

4.2.1. *For transport*

None

4.2.2. *For purposes other than transport*

Figures are being updated and will be forwarded as soon as possible.

5. Annexes

Annex 1 : Biofuels Act 10 June 2006 (MB/BS 16/06/2006)

Annex 2 : The Royal Decree of 10 March 2006 (MB/BS 20/03/2006)

6. Contact points

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