Report

pursuant to Article 4(1) of Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003

According to Article 4(1) of the Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport (hereinafter Directive 2003/30/EC), Member States must report to the Commission each year.

1. Measures taken to promote the use of biofuels or other renewable fuels

Production of biofuels and quality requirements for biofuels in Latvia are regulated by the following provisions, drafted and adopted in 2005:

- Biofuel Law, in force since 1 April 2005;
- Cabinet Regulation No 498 of 5 July 2005 Procedures for Circulation of Fuel Containing Bioproducts and Administration of the Relevant Excise Duty;
- Cabinet Regulation No 772 of 18 October 2005 Regulations Regarding Requirements for Biofuel Quality, Conformity Assessment, Market Supervision and Procedures for Consumer Information

On 22 June 2005, the Cabinet issued Instruction No 402 on measures to implement the Biofuel Law. The instruction set out the action plan for implementation of the Biofuel Law. For each task, the plan specified the responsible ministry and the time schedule. The objective according to the law is to promote circulation of biofuels thus supporting the use of environment-friendly and supply-secure renewable energy resources and ensure that the share of biofuels in the total of all fuels for transport purposes placed on their markets reaches at least 2% by 31 December 2005 and at least 5.75% by 31 December 2010.

In order to promote production and use of biofuels, fuel types with added biofuels enjoy a reduced rate of excise tax. Biofuel made entirely of rapeseed oil is exempted from excise tax.

On 25 January 2005, the Cabinet adopted Regulation No 70 on state aid in agriculture and its granting procedures. The Regulation sets the level of state aid in agriculture and rural development.

On 20 December 2005, the Cabinet adopted Regulation No 997 amending Regulation No 70 on state aid in agriculture and its granting procedures. The Regulation defines the procedure for supporting the use of processing in the production of biofuels. The procedure regulates granting the subsidy of LVL 500 000 for the promotion of processing of oil crops grown in Latvia.

On 13 September 2005, the Cabinet adopted Regulation No 712 on the procedure for granting state aid for the production of the necessary minimum amount of biofuels, the procedure for setting the financially supported quotas according to the types of biofuel, on the time schedule for reporting on the state aid granted in the previous year, and the

time schedule and procedure for submitting the annual estimate of the necessary support and its justification.

In cooperation with the Department of Materials Science and Applied Chemistry of Riga Technical University, a table of technical specifications has been developed listing the parameters of the biofuels and their mixtures with fossil fuels.

Latvian Standard LVS EN 14214 + AC: 2005 "Automotive fuels - Fatty acid methyl esters (FAME) for diesel engines - Requirements and test methods" concerns the quality of biofuels and the content requirements applying to mixtures with fossil fuels.

The following studies were conducted in 2005 regarding promotion of the production and consumption of biofuels:

- Order No EM2005/144 of the Ministry of Economic Affairs of Latvia: Study of changes in the quality of rapeseed oil methyl esters (biodiesel) during storage and in the forecasts of fuel circulation. The study covers ageing of biodiesel in various circumstances: in circumstances causing fast ageing of samples (increased temperature, increased air inflow) and in temperatures reflecting the actual storage conditions and weak air inflow. Since a common methodology for assessment of the state of biofuels in order to estimate their storage period is not available, the study analyses the possibility of applying current fuel quality testing methods and the most popular spectroscopic methods for this purpose.

- Project No 1-08/43/2005 "Potential, opportunities and obstacles of biofuels in relation to the implementation of Directive 2003/30/EC in Latvia" financed by the Administration of the Latvian Environment Protection Fund. The study identifies potential biofuel user groups, develops alternative scenarios of biofuel consumption patterns, estimates the environmental effect of using biofuels on greenhouse gas emissions, and presents proposals for implementation of biofuel promotion instruments in Latvia.

To inform the general public of the possibilities of biofuel production and usage, a book "*Biodegvielas ražošanas un izmantošanas iespējas Latvijā*" (Possibilities of Biofuel Production and Usage in Latvia) by Dr. Arnis Kalniņš was published in 2005.

In line with Cabinet Regulation No 70 of 25 January 2005 on state aid in agriculture and its granting procedures, the Ministry of Agriculture has granted LVL 40 000 to Riga Technical University for a study on determining the biofuel content in mixed fuels over the whole concentration range.

2. National resources allocated to the production of biomass for energy uses

To promote the active use of biomass (mainly wood) in Latvia for heat production in the local and district heat supply, fuel conversion projects are supported with financial instruments. Project holders may submit projects for co-financing from the EU structural funds in both the current and the next programming period.

Wood cutting and processing waste is a potential source of biomass not fully exploited at present in Latvia. Using wood biomass would provide a significant contribution to increasing the share of biofuels. 15-25% of total surface wood is left in wood felling sites in Latvia. This equals about 2-5 million tons of fuel per year. To ensure the technological

process and heat supply, the industries (mainly the wood sector companies) use about 25% of wood processing by-products (bark, sawdust, chips and remnants).

Fuel wood maintains a stable position in the national energy balance. It is the most important fuel in Latvia used in the local, central and district heat supply. Fuel share in the production of energy is rising, reaching 30% in the primary energy balance in 2005. This proportion mainly comprises consumption in households – over 50%.

Wood is also used in the production of electricity. Currently there are three wood CHP plants with an installed electrical capacity of 2 MW, and the development potential is significant.

In total, renewable energy resources accounted for one third of the total primary energy balance of Latvia in 2005.

It is expected that the use of renewable energy resources will increase in future, maintaining 36-37% self-provision in the consumption pattern of primary energy resources (see Figure 1).

Figure 1

Desirable consumption pattern of primary energy resources, PJ*

[*See the original Latvian report for the figure*]

Legend: Imported electricity; Hydro and wind power; Biomass; Natural gas; Oil products and shale oil; Peat; Coal and other fossil fuels; Self-provision

* For the consumption pattern of primary energy resources, the energy development scenario of the Climate Change Programme 2005-2010 is used, adjusted according to the 2004 statistics

Wood and hydro-resources are the most popular renewable energy resources in Latvia. Wind energy and biogas are used on a significantly smaller scale. Solar energy supplies a very small amount under some pilot projects. The total picture of renewable energy resources is presented in Table 1.

Table 1

Electricity production from renewable resources in 2005

	Large hydro power plants	Small hydro power plants	Biomass CHP plants	Wind generators	Biogas CHP plants
Number[1]	3	149	3	41	3
Installed capacity, MW[2]	1534	25	2	26.4	7.3

[1] Data of the Ministry of Economic Affairs
[2] Data of the Central Statistics Board

In the renewable energy resource mix of 2005, hydro resources account for 16.71%, wood 82.58%, wind energy 0.24%, and biogas 0.47%.

Renewable energy resources provide a significant contribution to the production of electricity. In 2004, the share of renewable energy resources in the total consumption (production + imports – exports) was 46.5%. This is 2.8% less than the indicative target for the share of electricity produced from renewable resources in total electricity consumption set for 2010 by the Electricity Market Law.

95.7% of the electricity output from renewable energy resources is ensured by large hydro power plants. Small hydro power plants produced around 2%, and wind generators and biogas plants 1.5% and 0.8% respectively, of total electricity output.

3. Transport fuels placed on the Latvian market

Fuel types and amounts sold on the Latvian market in 2005 are set out in Table 2.

Table 2

Total fuel consumed in 2005

No	Fuel type	Total consumption in 2005, in thousand tons[1]	Including for transport purposes, in thousand tons[1]
1	Petrol	342.0	335.0
2	Petrol with ethyl alcohol (4.5-5 volume per cent)	14.82[2]	14.82[2]
3	Diesel (including diesel marked for special purposes)	678.0	542.0
4	Biodiesel	2.89	2.89
5	Liquefied gas	56.0	24.0
	Total	1093.71	918.71

[1] Data of the Central Statistics Board
[2] Data of the State Revenue Service

According to the data of the Central Statistics Board, consumption of biofuel accounted for **0.33%** of the total fuel used for transport in 2005.

3.1. Current situation in biofuel production in Latvia

Aid is granted directly to biofuel producers according to their annual quota allocated in proportion to their production capacities. The Ministry of Agriculture calculates the total quota of direct aid according to the annual minimum of biofuels, i.e. the amount of biofuel necessary to comply with Directive 2003/30/EC.

A quota of financial support is allocated to businesses until 2011 and cannot be reduced. An increase of the quota and free quotas of financial support (quotas not allocated in the previous year or quotas refused by companies) are allocated by 1 May each year and distributed among biofuel producers who comply with the requirement in proportion to

their production capacity as on 1 February of the current year. The lowest prime cost of biofuel and bioethanol production is also considered.

Biofuel producers are not eligible for the increase of the annual quota of financial support if they:

- have produced less than 70% of the granted quota of financial support in the respective year;
- have submitted incorrect information in order to receive direct aid;
- have sold less than 50% of biofuel under the allocated quota of financial support on the domestic market.

The quotas for 2005: 11 392 000 litres of bioethanol and 12 500 000 litres of diesel.

The Ministry of Agriculture calculates the direct aid each year on the basis of average production costs. In 2005, the direct aid amounted to LVL 170 for 1000 litres of biodiesel and LVL 140 for 1000 litres of bioethanol.

In 2005, the SIA "Jaunpagasts Plus" company received direct aid for 11 392 000 litres of bioethanol, and the SIA "Delta Rīga" company received direct aid for 3 000 000 litres of diesel (see Table 3).

Table 3

Quotas of financial support allocated to the biofuel producers in 2005*

No	Year	Quotas of financial support allocated to biofuel producers in 2005				Notes
		Quota of financial support for the production of bioethanol (litres)	Direct aid per 1000 litres	Quota of financial support for the production of biodiesel (litres)	Direct aid per 1000 litres	
1	2005	11392000	LVL 140	12500000	LVL 170	
2		11392000 – SIA "Jaunpagasts Plus"		3000000 – SIA "Delta Rīga"		Covers products produced since 21 September 2005

* Data of the Ministry of Agriculture

In 2005, the granted state aid (in the form of direct aid) for biofuels amounted to LVL 358 980.84 for the produced bioethanol and LVL 201 773.36 for the produced biodiesel.

SIA "Jaunpagasts Plus" purchased 9 101 37 tons of grain for the production of bioethanol in 2005, and produced 2 062 146 thousand litres of biofuel.

SIA "Delta Rīga" purchased 2 513 47 tons of rapeseed for the production of biodiesel in 2005, and produced 773 488 thousand litres of biofuel.

Table 4

Area of rape fields, output and productivity in 2005-2005*

	Measurement unit	2002	2003	2004	2005
Area	ha	18.4	25.9	54.4	71.4
Output	thousand t	32.7	37.4	103.6	145.7
Productivity	t per 1 ha	1.78	1.44	1.90	2.04

* Data of the Central Statistics Board

In 2005, the area of rape fields continued to grow. In comparison to 2004, the area of rape fields increased by 131%, and output by 141%. Average output per 1 ha increased by 0.14 tons, reaching 2.04 t/ha. Spring rape maintains the largest share – 67.9% of the total area.

Although the rape fields grow each year, the majority is exported because local rape processors cannot handle the total amount of rape produced. In 2005, around one third of output – 40 000 tons – remained in Latvia and was processed into biodiesel and pure rapeseed oil.

Existing and planned biofuel plants in Latvia are set out in Table 5.

Table 5

Existing and planned biofuel plants in Latvia

No	Company	Type of biofuel	Design capacity thousand t/year	Launching year
1	SIA "Delta Rīga"	Biodiesel	2.5	2001
2	SIA "Mežrozīte"	Biodiesel	5.0	2006[1]
3	SIA "Jaunpagasts Plus"	Bioethanol	10.0	2004
4	SIA "Mamas D"	Biodiesel	3.5	2006[1]

5	SIA "BioVenta"	Biodiesel	100.0	2006[2]
6	SIA "Lako"	Bioethanol	13.0	2006[2]
7	SIA "Logins & Co"	Biodiesel	2.5	2006[2]
8	SIA "BHC"	Biodiesel	4.5	2006[2]
9	SIA "Delta Jelgava"	Biodiesel	50.0	2007
10	SIA "EcoDiesel"	Biodiesel	100.0	2007

1 Biofuel companies that have started biofuel production in 2006
2 Biofuel companies that plan to start biofuel production in 2006

3.2. Measures to achieve the minimum target for biofuels and other renewable fuels placed on the market

The National Development Plan for 2007-2013 stresses the importance of renewable energy, including biomass, in the effort to ensure sustainable development. It provides for promotion of the use of renewable natural resources and alternative energy sources in the production of energy (heat and power), including the use of biomass in CHP, maintaining agricultural land for the production of agricultural products, and increasing the contribution of the agricultural sector in the production of raw materials for heating and transport fuel.

The "Biofuel Production and Use in Latvia for 2003-2010" programme serves as a framework document for forecasting biofuel use and the related production and trade issues. A biofuel share of 5.75% of total consumption in 2010 will require the consumption of 75 thousand tons of biofuel, i.e. 32 thousand tons of bioethanol and 43 thousand tons of biodiesel.

The "Infrastructure and Services" operational programme supports fuel conversion projects aiming to reduce the impact of energy production on the environment, and CHP energy production projects. Available co-financing from the European reconstruction and development funds for this activity amounts to LVL 7 886 345.97. Public sector energy projects are also financed with loans from the European Investment Bank and the European Bank of Reconstruction and Development.

The respective measures fall mainly under the "Environment" activity of the "Infrastructure and Services" operational programme, as increasing energy efficiency at the user's end and in the systems of the energy supplier reduces fuel consumption and accordingly the harmful impact of energy production on the environment. Increased use of renewable resources reduces the impact of energy production on climate change. Implementation of the measures will promote the implementation of thematic priority 2 of the National Strategic Framework Document (Increase of competitiveness and change towards a knowledge-based economy), as it will increase energy security and availability to the public and the economy. Measures aiming at the use of renewable energy resources will contribute to the Human Resources and Employment operational programme.

Besides the operational programmes listed above, energy measures will have a positive impact on the agriculture sectors closely related to the production and supply of biomass, as the increase of power and heat generation from biomass and the use of biofuels will ensure a high level of the use of renewable energy resources.

In 2006, activities were started for establishing a contact point for technology transfer in Riga Technical University (RTU). The contact point will focus on the production and quality assurance of biodiesel and diesel containing biodiesel. The project will study demand for the results of studies and cooperation opportunities, develop a database on the competencies of the RTU scientific centre in fuel chemistry, prepare a proposal on commercialising the studies, establish a demonstration facility of biodiesel production with small capacity reactors for demonstrating various technologies, and advise companies.