REPORT ON MEASURES TO PROMOTE THE USE OF BIOFUELS AND OTHER RENEWABLE RESOURCES

(Implementation of the provisions of Directive 2003/30/EC of the European Parliament and of the Council on the promotion of the use of biofuels or other renewable fuels for transport)

Country – LITHUANIA

2007

Introduction

This report provides information about the implementation of the provisions of Directive 2007/30/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 referred to as "Directive 2003/30/EC") in Lithuania in 2007.

1. National legal framework

Lithuania has limited energy resources and is dependent on imports of such resources; increasing the use of renewable energy resources and biofuels is therefore of particular relevance to Lithuania.

The provisions of Directive 2003/30/EC have been transposed into the Law on biofuel, biofuels for transport and bio-oils (adopted by the Parliament of the Republic of Lithuania on 5 February 2004, Official Gazette 2004, No 28-870).

For the purposes of implementing the provisions of Directive 2003/30/EC and the Law on biofuel, biofuels for transport and bio-oils, a number of national legal acts were adopted in the 2005-07 period.

The reports submitted to the European Commission for 2005 and 2006 on measures to promote the use of biofuels and other renewable resources contain data concerning the legal acts applicable at the time which regulated the production, use and promotion of biofuels in Lithuania.

This report contains information on national legislation concerning the production, use and development of biofuels that was adopted in 2007:

1. The National Energy Strategy adopted by Resolution of the Parliament of the Republic of Lithuania of 18 January 2007 (Official Gazette 2007, No 11-430), which also sets out the prospects for the development of renewable energy sources up to 2025. One of the main objectives of this strategy is to increase the share of indigenous and renewable energy resources in the country's total primary energy balance to 20% by 2025 and to increase the share of biofuels in the total transport fuel balance to 20% by the same year.

2. The revised Rules governing trade in petroleum products, biofuel, bio-oil and other flammable liquid products in the Republic of Lithuania, approved by Order No 4-408 of the Minister for the Economy of the Republic of Lithuania of 3 October 2007 (Official Gazette 2001, No 37-1269; 2007, No 104-4266). Petroleum products supplied to the country's domestic

market on or after 1 January 2007 must comply with the following requirements:

- 95 RON motor spirit must be produced using the additive bio-ethyl tertiary butyl ether (hereinafter referred to as "bio-ETBE"), the proportion of which in the blend with petrol must be at least 7% by volume, but not more than 15% by volume. 47% of bioethanol by volume is used to produce one unit of bio-ETBE by volume;

- 95 RON motor spirit produced without bio-ETBE must have a bioethanol content of 5% by volume (with a permitted tolerance of minus 0.5% by volume); the permitted tolerance for bioethanol by volume in bioethanol E85 is plus/minus 0.5% by volume;

- 98 RON motor spirit must not be directly blended with bioethanol;

- diesel (with the exception of class-2 Arctic diesel) must contain 5% by volume of fatty acid methyl ester (FAME) (with a permitted tolerance of minus 0.5% by volume) produced from vegetable oils or fats of animal origin. The quantity of FAME in diesel may be greater than 5% by volume if the diesel/FAME blend meets the mandatory quality indicators for diesel.

These Rules also permit the sale in Lithuania of a new type of fuel – bioethanol E85 (85% ethanol obtained from agricultural produce and 15% lead-free 95-octane petrol). Bioethanol E85 is produced by the Lithuanian firm AB Biofuture. These biofuels were first marketed in Lithuania in November 2007.

3. Rules for financing the development of biofuel production are approved each year by an order of the Minister for Agriculture and provide for measures to promote the development of biofuel production, making it possible to use agricultural produce for non-food purposes. The 2007 Rules for financing the development of biofuel production, approved by Order No 3D-385 of the Minister for Agriculture of 20 August 2007 (Official Gazette 2007, No 91-3667) provide for the following levels of support in respect of raw materials for the production of biofuels: rapeseed – LTL 160/t; cereal grain – LTL 114/t. They lay down the following maximum amounts of seed/grain in respect of which beneficiaries (biofuel producers) are eligible for support: rapeseed – 111 390 tonnes; cereal (wheat, triticale, rye) grain – 66 686 tonnes.

4. Rules on the administration and monitoring of support for energy crops for biofuel production were approved by Order No 3D-223 of 5 May 2007 of the Minister for Agriculture of the Republic of Lithuania (Official Gazette 2007, No 52-2035; 2008, No 44-1670). Under these Rules, agricultural operators who grow energy crops may, after submitting an application for support, receive support in respect of energy crops at the rate of EUR 45 per hectare of land under such crops. (Energy crops are crops (cereals, rape, sugar beet, maize, perennial grasses, short-rotation coppice) grown as raw materials for biofuels).

2. Promotion measures

In Lithuania, legal and economic measures are deployed to encourage greater use of indigenous energy resources, the necessary legal instruments governing the use of all types of renewable energy sources in the energy and transport sectors are prepared, and aid is provided to growers of energy crops.

Article 38(4) of the Excise Duty Law (Official Gazette 2001, No 98-3482; 2004, No 226-802) provides for relief from duty for energy products produced from materials of biological origin: the rate of excise duty set for the said products has been reduced in proportion to the percentage of additives of biological origin in a tonne of the product in question (currently, fuels of biological origin are zero-rated for excise duty purposes). According to data supplied by the State Tax Inspectorate under the Ministry of Finance of the Republic of Lithuania (hereinafter "State Tax Inspectorate"), the excise duty relief applied under Article 38(4) of the Excise Duty Law to biofuels sold on the domestic market totalled LTL 56.44 million (EUR 16.35 million) in 2007. Excise duty relief was applied in 2007 in respect of 14 590 tonnes of pure bioethanol,

blended with mineral fuels either in pure form or in ETBE, and 45 292 tonnes of biodiesel (FAME) blended with diesel fuel.

In 2007, Lithuanian firms producing biofuels (bioethanol and biodiesel) processed 74 000 tonnes of rapeseed and 52 000 tonnes of cereal grain grown in Lithuania. LTL 23.6 million (EUR 6.84 million) was paid to beneficiaries from the State budget under national legislation. Beneficiaries included producers of rapeseed oil for use in the production of rapeseed methyl ester, producers of rapeseed methyl (ethyl) ester and producers of dehydrated ethanol.

Furthermore, under EU provisions on aid for the cultivation of energy crops, about EUR 4.5 million of aid was paid in 2007, at a rate of EUR 30 per hectare of land under energy crops.

3. Indigenous resources used for biofuel production (for transport purposes)

The main raw material for the production of biofuels in Lithuania is oilseed rape (raw material for the production of biodiesel) and cereal grains (raw material for the production of bioethanol).

In 2007, three firms accounted for the bulk of biofuel production in Lithuania: AB Biofuture (bioethanol production) and UAB Rapsoila and UAB Mestilla (biodiesel production).

A further two Lithuanian firms started producing biodiesel in 2007: UAB Arvi cukrus and the SV Obeliai cooperative (production has only just started).

Table 1 contains information on the production, export and sale on the domestic market of biofuels by Lithuanian firms in 2005-07 (source – firms' own data).

Production, sale and export of biofuels ('000 tonnes), 2005-07

Table 1

Product, producers	**Produced**			**Sold on domestic market**			**Exported**		
	2005	2006	**2007**	2005	2006	**2007**	2005	2006	**2007**
Biodiesel (FAME), total:	7.0	10.3	**24.7**	3.2	9.9	**17.2**	4.4		**5.1**
by producer:									
UAB Rapsoila	7.0	10.3	**14.7**	3.2	9.9	**13.2**	4.4	-	**0.1**
UAB Mestilla	-	-	**10.0**	-	-	**4.0**	-	-	**5.0**
Bioethanol for the production of motor fuels, total (producer: UAB Biofuture)	7.2	14.4	**15.0**	0.9	8.1	**14.0**	6.0	6.3	**0.6**

According to preliminary data supplied by the Statistical Department under the Government of the Republic of Lithuania (hereinafter "Statistical Department"), 34 100 tonnes of biofuels were imported into Lithuania in 2007, including: 3 900 tonnes of bioethanol and 30 200 tonnes of biodiesel.

According to data provided by the Statistical Department, total fuel consumption in Lithuania in 2007 was 1 777 600 tonnes, including 1 521 000 tonnes of motor spirit and diesel fuel (including biofuels) and 256 600 tonnes of LPG.

Table 2 contains preliminary data on the consumption of fuels for transport purposes in 2007 ('000 tonnes) and their relative shares (%) in terms of energy value (source: Statistical Department).

Fuel consumption for transport purposes in 2007

Table 2

Fuel type	'000 tonnes	Energy value of fuel GJ*	Energy value of fuel (relative share in %)
Bioethanol used to produce motor spirit (petrol) blends	7.0	189 000	0.29
Bio-ETBE used to produce motor spirit (petrol) blends	24.4	878 400	1.36
Biodiesel used to produce diesel blends	47.3	1 750 100	2.70
Total biofuels used to produce fuel blends	**78.7**	**2 817 500**	**4.35**
Motor spirit (without bioadditives)	405.1	17 419 300	26.87
Diesel fuel (without bioadditives)	1037.2	44 599 600	68.78
Fuels (without bioadditives), total	**1442.3**	**62 018 900**	**95.65**
Total fuel consumption for transport	**1521**	**64 836 400**	**100**

** The energy value of fuels has been calculated on the basis of the biofuel energy content indicated in Annex III (Energy content of transport fuels) to the proposal for a Directive of the European Parliament and of the Council on the promotion of the use of renewable energy sources presented by the European Commission on 30 January 2008.*

Table 3 provides adjusted data on the consumption of fuels for transport purposes in 2006 ('000 tonnes) and their relative share (%) in terms of energy value (source: Statistical Department publication "Fuel and Energy Balance – 2006").

Fuel consumption for transport in 2006

Table 3

Fuel type	'000 tonnes	Energy value of fuel GJ*	Energy value of fuel (relative share, %)
Bioethanol used to produce motor spirit (petrol) blends	2.7	72 900	0.14
Bio-ETBE used to produce motor spirit (petrol) blends	14.1	507 600	1.00
Biodiesel used to produce diesel blends	15.8	584 600	1.15
Total biofuels used to produce blends	**32.6**	**1165 100**	**2.29**
Motor spirit (without bioadditives)	342.5	14 727 500	28.97
Diesel fuel (without bioadditives)	812.8	34 950 400	68.74
Fuels (without bioadditives), total	**1155.3**	**49 677 900**	**97.71**
Total fuel consumption for transport	**1187.9**	**50 843 000**	**100.00**

* Note: *According to Article 2(2) of 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, biofuels also include ETBE produced on the basis of bioethanol (provided that the bioethanol content is at least 47%).*

Conclusion: The relative share of biofuels (bioethanol, bio-ETBE and biodiesel) in the total consumption of transport fuels in Lithuania, in terms of energy value, is as follows:

2006 – 2.29%;

2007 – 4.35% (preliminary data).

The marked increase in the biofuel share was partly the result of the compulsory blending of biofuels and mineral fuels from 1 January 2007, as laid down in national legislation.

Lithuania is thus implementing the provisions of Directive 2003/30/EC of the European Parliament and of the Council on the promotion of the use of biofuels or other renewable fuels for transport, as well as fulfilling the obligations to increase the use of biofuels in transport, as established by national legislation.

4. Current situation as regards the use of renewables

The implementation of a policy to promote the use of renewable energy sources is resulting in an increase in the use of such resources in Lithuania.

Energy is produced from wood, wood waste, crops and crop waste, energy crops, biogas and geothermal and hydro and wind power. The use of biofuels (biofuel consumption in 2007 was about twice its 2006 level) and the use of wind power to generate electricity (production in 2007 had increased eight-fold compared with 2006) are the fastest-growing sectors in Lithuania.

At the beginning of 2007, there were 95 operators producing electricity from renewables in Lithuania. The total installed capacity of RES power plants was 190 MW.

Hydropower, wind power and biofuels (wood, wood waste, biogas) are used to generate electricity. Also operating were the Kaunas HEP plant (installed capacity: 100.8 MW), 80 HEP plants with a capacity of less than 10 MW (total installed capacity: 25 MW), four biogas fuelled power plants and two power biomass (wood waste) fuelled power plants (total installed capacity: 15 MW) and nine wind farms (total installed capacity: 49 MW).

The use of renewables is also growing in the heat production sector in Lithuania. There is currently one geothermal power plant operating, in Klaip•da. Its installed capacity based on geothermal water is 20.8 MW (total installed capacity, together with other boilers: 49 MW) Renewables (biofuel and geothermal energy) accounted for 16.2% of the district heating balance in 2007.

Use of indigenous biomass resources (for energy purposes) in 2006 and 2007

table 4

Biomass	**Unit of measurement**	**Domestic resources**	
		2006	2007
Fuel peat	‘000 tonnes	47.0	67.0
Peat briquettes	‘000 tonnes	28.7	20.7
Firewood and wood waste	‘000 m3	3715.1	3602.2
Biogas	million m3	4.1	5.2

Annexe to the report on measures to encourage the use of biofuels and other renewable resources

Regarding State aid No 44/2005 – Lithuania (Excise duty reduction for biofuels)

Pursuant to Council Directive 2003/96/EC of 27 October 2003 (restructuring the Community framework for the taxation of energy products and electricity) and without prejudice to Article 16 thereof, allowing Member States to apply a reduced rate of excise duty to products produced from biomass or products containing biomass and exemptions from excise duty under certain conditions, Lithuania began applying a reduced rate of excise duty to biofuels for transport.

The measure applied is State aid as defined in Article 87(1) of the EC Treaty. The aid is provided by the State of Lithuania and financed from its own public resources because the tax exemption results in reduced revenues that would otherwise be received by the State budget. As the excise rate reduction for biofuels for transport is treated as State aid, Lithuania notified the European Commission, in line with the set procedure, of its intentions to reduce the excise duty on biofuels.

On 25 July 2005, the European Commission informed Lithuania (letter No 204085) that it had no objections to the aid scheme for the application of a reduced rate of excise duty to blends of biofuel and other fuel types (State Aid No: N44/2005 – Lithuania. Excise duty reduction for biofuels.)

The relief is applicable to bioethanol, biodiesel, bio-ETBE and pure vegetable oil.
Lithuania has undertaken to submit to the European Commission an annual monitoring report on the production costs of mineral fuels (diesel and petrol) and biofuels (biodiesel and bioethanol) for transport and the sale prices of fuel blends to prove that no overcompensation exists. The information must be provided to the Commission in annual reports.

To meet this commitment, we hereby provide a comparison of the production costs and sale prices of mineral fuels (petrol, diesel), biofuels (biodiesel and bioethanol) for transport and fuel blends in 2006 (Tables 1, 1a, 1b, 2, 2a and 2b).

The data in these tables shows that the sale price of fuel blends, adjusted for fuel energy values, is higher than the sale price of mineral fuel (diesel and/or petrol).

Notes

The annex to the report contains data obtained from biofuel-producing firms: AB Biofuture (bioethanol production), UAB Rapsoila and UAB Mestilla (biodiesel (FAME) production) and AB Mažeiki• nafta (information on mineral oil production costs and sale prices set by producers).

The data on biodiesel (FAME) production is presented as an aggregate of the data provided by the two firms, whereas the data provided on production costs and producers' sale prices represents an arithmetical average.

The information in Tables 1 and 2 provided by the firms is confidential and, at the request of the firms, may not be disclosed to third parties.

Production costs and sale price (before tax) of fuels (biodiesel and diesel)

Table 1*

Price of fuel, LTL1 per litre	**Biodiesel (FAME)**	**Diesel**
1. Raw material (+)	2.35	1.13
2. Processing (+)	0.59	0.06
3. Other costs (research, reorganisation of production) (+)	0.11	-
4. Production costs	3.05	1.19
5. Logistics (+)	0.17	0.09
6. By-product sale price (-)	0.55	-
7. Profit	0.03	0.22
8. Sale price set by producer (before tax)	**2.70**	**1.50**

*** not for publication**

Sale price of blended (diesel and biodiesel) fuel

Table 1a

Price of fuel blend, LTL per litre	**5% FAME**
Biodiesel (FAME) costs in blend (5% x LTL 2.70 per litre);	0.135
Diesel costs in blend (95% x LTL 1.50 per litre)	1.425
Excise duty (95% x LTL 0.85 per litre);	0.81
Total sale price of fuel blend	2.37
Adjustment due to lower energy content of blend (15%)2a	0.02
Sale price of fuel blend (relative)	**2.39**

Diesel sale price

Table 1b

Diesel sale price (before tax) (100% x LTL 1.50 per litre)	**1.50**
Excise duty on diesel	0.85
Diesel sale price[3]	**2.35**

1 - Exchange rate used – LTL 3.4528 = EUR 1;
2a – The energy value of biodiesel, as compared with mineral fuel (diesel), is lower: it has been calculated that the amount of biodiesel needed to produce a unit of energy is 15% higher than the amount of diesel needed to produce the same unit of energy.
3 – without VAT.

Note. Fuel energy values have been calculated on the basis of the biofuel energy content indicated in Annex III (Energy content of transport fuels) to the proposal for a Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, presented by the European Commission on 30 January 2008.

Production costs and sale price (before tax) of fuels (bioethanol and petrol)

Table 2*

Price of fuel, LTL1 per litre	Bioethanol (ETBE)	Petrol
1. Raw material, incl. seed/grain payments (+)	1.46	1.16
2. Processing (+)	0.63	0.06
3. Other costs (research, reorganisation of production) (+)	0.35	
4. Production costs	2.44	1.22
5. Logistics (+)	0.125	0.09
6. By-product sale price (-)	-	-
7. Profit	-	0.14
8. Sale price set by producer (before tax)	**2.57**	**1.45**

*** not for publication**

Sale price of fuel (bioethanol and petrol) blend

Table 2a

Price of fuel blend, LTL per litre	containing 5% bioethanol	Containing ETBE with a bioethanol 3.29%	7.05%
Bioethanol costs in blend (3.29% x LTL 2.57 per litre); (5% x LTL 2.57 per litre); (7.05% x LTL 2.57 per litre);	0.128	0.085	0.181
Petrol costs in blend: (96.71% x LTL 1.45 per litre); (95% x LTL 1.45 per litre); (92.95% x LTL 1.45 per litre)	1.40	1.377	1.348
Excise duty (96.71% x LTL 0.99 per litre); (95% x LTL 0.99 per litre); (92.95% x LTL 0.99 per litre);	0.94	0.96	0.92
Total sale price of fuel blend	2.468	2.422	2.45
Adjustment due to lower energy content of blend (60%)2b	0.077	0.051	0.109
Sale price of fuel blend (relative)	**2.54**	**2.47**	**2.56**

Petrol sale price

Table 2b

Petrol sale price (before tax) (100% x LTL 1.45 per litre)	1.45
Excise duty on petrol	0.99
Petrol sale price3	2.44

1 - Exchange rate used – LTL 3.4528 = EUR 1;
2b - The energy value of bioethanol, as compared with mineral fuel (petrol), is lower: the amount of bioethanol needed to produce a unit of energy has been calculated to be 60% higher than the amount of petrol needed to produce the same unit of energy;
3 - excluding VAT.

Note*. Fuel energy values calculated on the basis of the biofuel energy content indicated in Annex III (Energy content of transport fuels) to the proposal for a Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, presented by the European Commission on 30 January 2008.*