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REPUBLIC OF BULGARIA

MINISTRY OF THE ECONOMY AND ENERGY

**Report for 2007 from the Republic of Bulgaria to the
European Commission on the implementation of
Directive 2003/30/EC of the European Parliament and
of the Council of 8 May 2003**

Sofia, June 2008

This report has been drawn up pursuant to Article 4(1) 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, which requires every Member State to report annually to the European Commission on the measures taken to promote the use of biofuels for transport and the market conditions created in their country.

The report is also consistent with the provisions of Article 5(1)(9) of the Renewable and Alternative Energy Sources and Biofuels Act (ZVAEIB).

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I. Policy to promote the use of biofuels

I.1. *Renewable and Alternative Energy Sources and Biofuels Act*

The Renewable and Alternative Energy Sources and Biofuels Act was adopted by the 40th National Assembly in June 2007. This Act transposes Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market and Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels in transport.

It governs relationships between stakeholders in the context of the promotion of the production and use of electricity, heat and/or cooling energy from renewable and alternative energy sources and the production and use of biofuels, which will lead to a reduction in the use of conventional fuels and in harmful emissions.

It also provides for the development of national indicative targets for the promotion of the use of biofuels and other renewable fuels in transport, which are expressed as a minimum proportion of the final annual consumption of motor petrol and diesel fuel. The targets are adopted by the Council of Ministers acting on a proposal of the Minister for the Economy and Energy and the Minister for Transport.

In accordance with the ZVAEIB, producers and importers of liquid fuels for transport are from 1 January 2008 required to market petroleum-based fuels blended with biofuels, the percentage of biofuels in a blend being the maximum permitted in the relevant standards (BDS EN 228 for motor petrol and BDS EN 590 for diesel fuels). The mandatory blending of biofuels with petroleum-based liquid fuels is carried out only in tax warehouses licensed in accordance with the procedure laid down in the Excise Duties and Tax Warehouses Act (ZADS).

It is planned to use biofuels in the transport sector in pure form or in mixtures as a component of petroleum-based liquid fuels for internal combustion engines.

The use of biofuels is subject to the technical and quality requirements for biofuels and blends of biofuels with petroleum-based liquid fuels specified in the Regulation on the quality requirements for liquid fuels and the conditions, procedures and method for monitoring such fuels.

I.2. Excise Duties and Tax Warehouses Act

The Excise Duties and Tax Warehouses Act governs the collection of excise duties and control over the production, use, storage, movement and security of excise goods.

This Act sets the rate of motor fuel excise duty for biodiesel and bioethanol at BGN 0 per 1 000 litres. The most recent amendment to the ZADS resulted in the application of a reduced rate of excise duty to liquid fuels blended with biofuels.

I.3. Clean Ambient Air Act

The Clean Ambient Air Act (ZChAV, published in State Gazette No 52 of 6 June 2008) lays down quality requirements for liquid fuels, including the monitoring of compliance with requirements relating to the marketing, distribution, transport and use of liquid fuels.

In accordance with the ZChAV, the Council of Ministers, acting on a proposal of the Minister for the Economy and Energy, the Minister for the Environment and Water and the Chairman of the State Agency for Metrological and Technical Supervision, is to adopt a regulation laying down technical and quality requirements for liquid fuels, the limit values for lead, sulphur and other harmful substances in such fuels, and the conditions, procedures and method for monitoring liquid fuels.

This Act prohibits the marketing, distribution and use of liquid fuels under names other than those specified in the supplementary provisions of the ZChAV, which also cover biofuels.

1.4. Regulation on quality requirements for liquid fuels and the conditions, procedures and method for monitoring such fuels

The Regulation on quality requirements for liquid fuels and the conditions, procedures and method for monitoring such fuels, adopted by Decree No 156 of 2003 of the Council of Ministers (published in State Gazette No 66/2003; amended in State Gazette No 76/2007) lays down the conditions, procedures and method for monitoring the quality of liquid fuels at the post-production stage, following their release for free circulation in the case of imports, and when they are distributed, including to filling stations and the fuel storage tanks of combustion plants.

The most recent amendment to the Regulation introduced quality requirements for biodiesel in accordance with standard BDS 14 214. On account of the properties of the low-oil sunflower varieties in widespread use in Bulgaria, a transitional period until 31 December 2010 has been proposed, enabling a switch to be made from an iodine value of 140 g I/100 g to the value of 120 g I/100 g, as specified in the standard.

1.5. Regulation on the conditions and procedures governing support for energy crop producers

The Regulation on the conditions and procedures governing support for energy crop producers was issued by the Ministry of Agriculture and Food (published in State Gazette No 37 of 8 May 2007; amended in State Gazette No 4 of 15 January 2008). This Regulation was drawn up pursuant to Section 35 of the Act on support for agricultural producers (ZPZP) and lays down the conditions and procedures for direct payments per hectare of land under energy crops.

It is consistent with the requirements of Council Regulation No 1782/2003 establishing common rules for direct support schemes under the common agricultural policy and establishing certain support schemes for farmers and Commission Regulation No 1973/2004 laying down detailed rules for the application of Council Regulation No 1782/2003 as regards the support schemes

provided for in Titles IV and IVa of that Regulation and the use of land set aside for the production of raw materials.

Under this Regulation, farmers receive direct payments for energy crops when they produce any type of agricultural product which is intended for use in energy products and in respect of which the Minister for Agriculture and Food has established a representative yield. The subsidies amount to EUR 45 per hectare.

II. National targets for the use of biofuels

In accordance with the ZVAEIB, a national long-term programme for the promotion of the use of biofuels in transport in the period 2008-20 was adopted by a decision under Item 2 of Protocol No 43 of the meeting of the Council of Ministers of 15 November 2007. The Programme sets out the national indicative targets for the promotion of the use of biofuels in Bulgaria in the period 2008-20.

The national indicative targets for the use of biofuels were determined on the basis of an analysis reflecting the actual potential for the cultivation of energy crops in Bulgaria. Account was taken of information on the capacity of existing plants and notified future plants that are expected to be put into service by 2010. When determining the national targets, the current status and future development of petrol and diesel fuel use in the transport sector in Bulgaria was also taken into consideration.

The following national targets for the use of biofuels in transport have been set:

2008 – 2.00%

2009 – 3.50 %

2010 – 5.75 %

2015 – 8.00 %

2020 – 10.00 %

When drawing up the programme, account was taken of the conclusions of the European Council of March 2007, and it corresponds to the EU's new objectives whereby every Member State has to achieve a binding minimum 10% share for biofuels in the use of petrol and diesel fuels in the transport sector by 2020.

Success in achieving this binding 10% target requires the creation of conditions for sustainable biofuel production and the development and marketing of second-generation biofuels.

III. Biofuel production in Bulgaria in 2007

A 2% target for the consumption of biofuels in transport was set for Bulgaria in 2008. It is also from the beginning of 2008 that producers and importers of liquid fuels will be under an obligation to blend fuels of mineral origin with biofuels for transport.

Biofuel consumption in Bulgaria was still insignificant in 2007. Preliminary data from the National Statistical Institute (NSI) indicate that the quantity of biofuels produced in the form of biodiesel was 4 036 tonnes. The NSI will present its final data for 2007 in late 2008.

Set out below is information on the total yields of agricultural crops* used as raw materials in biofuel production in Bulgaria in 2007.

- Wheat was the main agricultural crop in terms of volume: 2 390 610 tonnes was produced from a growing area of 1 120 510 hectares. The average yield was 2.2 tonnes per hectare, corresponding to 0.62 tonnes of alcohol per hectare.

- Sunflower was the second most important agricultural crop, after wheat. 686 692 hectares were planted with oil sunflower, and the yield was 564 447 tonnes. The average yield was 0.94 tonnes per hectare, corresponding to 0.38 tonnes of oil per hectare.

- The maize yield was 312 860 tonnes from a growing area of 396 731 hectares; the average yield was 1.46 tonnes per hectare, corresponding to 0.46 tonnes of alcohol per hectare.

- Rape production in Bulgaria was 93 018 tonnes from 54 707 hectares. The average yield was 1.73 tonnes per hectare, corresponding to 0.61 tonnes of oil per hectare.

- The area under sugar beet was 1 344 hectares, and production was 16 281 tonnes. The average yield was 12.68 tonnes per hectare, corresponding to 1.11 tonnes of alcohol per hectare.

* Based on data from the Agricultural Statistics Directorate of the Ministry of Agriculture and Food: Agricultural crop yields – 2007 harvest.

IV. Bulgaria's potential for energy crop and biofuel production

IV.1. *Cultivation of energy crops*

Bulgaria has favourable climatic conditions for growing oilseed crops and cereals. Studies show that Bulgaria has land on which the raw materials necessary for producing biofuels can be grown without adversely affecting the food sector.

The table below presents a forecast of biofuel production and requirements for the land needed for growing energy crops.

Biofuels	2008		2009		2010		2015		2020	
	kt	area (ha)	kt	area (ha)	kt	area (ha)	kt	area (ha)	kt	area (ha)
Bioethanol	9.7	8 767	16.0	14 497	24.5	22 664	33.4	30 924	37.0	34 238
Biodiesel	34.2	58 524	63.3	108 290	108.7	185 925	185.2	316 862	277.5	474 763
Total	43.9	67 297	79.3	122 787	133.2	208 589	218.6	347 786	314.5	509 001

To meet the national indicative target for 2008, biofuel use is expected to rise to 43.9 kt, and a total of 67 297 ha of land will be needed to produce this amount. The area needed to meet the 5.75% national indicative target for biofuels in 2010 is 208 589 ha, corresponding to 6.8% of the arable area (3 057 740 ha) in 2007.*

Bulgaria enjoys excellent natural conditions for the development of agriculture and forestry. It had about 3.06 million ha of arable land in 2007, equating to 59.8% of the country's utilised agricultural area. The favourable climate for producing different crops and the availability of farmland and existence of farming traditions make for a well-developed arable and stock farming sector.

The utilised agricultural area in 2007 was 5.116 million ha, or 46.1% of the national territory. In 2007, 291 751 ha – or 9.5% – of arable land was lying fallow.

IV.2. *Biofuel production capacities*

Bulgaria already has the capacity to produce approximately 100 000 t of biofuels annually. The new capacities identified are as follows:

* Based on data from the Agricultural Statistics Directorate of the Ministry of Agriculture and Food: BANSIK 2007 – Final results for land cover and use in Bulgaria in 2007.

- 2008 – 594 kt of biodiesel and 55 kt of bioethanol;
- 2010 – 415 kt of biodiesel and 95 kt of bioethanol;
- 2020 – 448 kt of biodiesel and 107 kt of bioethanol;

These capacities would exceed, several times over, the quantities of biofuels necessary to meet Bulgaria's national targets.

V. Conclusion

The production of biofuels is based on local raw materials, which could contribute to improving the security of supplies. For Bulgaria, biofuels represent an alternative to petrol and diesel fuels, providing scope for reducing dependency on imported fuels and contributing to the security of energy supplies.

Substituting biofuels for petroleum-based fuels is one of the options for utilising the energy potential of RES, in particular biomass, in Bulgaria. It will result both in a more rational use of arable land and in the utilisation of abandoned land in Bulgaria. The whole process – from the cultivation of energy crops to the distribution and use of biofuels – will also help boost employment, especially in the economically underdeveloped regions of the country.