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REPUBLIC OF BULGARIA

MINISTRY OF ECONOMIC AFFAIRS AND ENERGY

The Republic of Bulgaria's 2006 report
to the European Commission on the implementation of Directive 2003/30/EC
of the European Parliament and of the Council of 8 May 2003

June 2007, Sofia

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Under 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, Member States are required 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 the country.

I. Policy to promote the use of biofuels

Act on renewable and alternative energy sources (ZVAEIB), published in Official Gazette No 49 of 19 June 2007

In accordance with EU law and in implementation of the undertakings given during the negotiating process and the recommendations of the European Commission, an Act on renewable and alternative energy sources was drafted.

The basic objectives of the Act are diversifying energy supplies, promoting the development and use of technologies for the production and use of energy from renewable and alternative energy sources, promoting the development and use of technologies for the production and use of biofuels and renewable fuels in transport and increasing the capacity of small and medium-sized enterprises, producers of energy from renewable energy sources and alternative energy sources and producers of biofuels and other renewable fuels.

This Act and the planned acts for its effective implementation ensure full harmonisation with Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels for transport.

The Act provides for the drafting 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 petrols and diesel fuel. The national indicative targets are being jointly developed by the Ministry of Economic Affairs and Energy and the Ministry of Transport for adoption by Bulgaria's Council of Ministers.

The ZVAEIB requires producers and importers of liquid fuels for use in transport to market fuels of petroleum origin mixed with a percentage of biofuels specified by the Regulation on the quality requirements for liquid fuels, the conditions, procedure and grounds for its control,¹ adopted for the effective implementation of the Act concerning the Purity of

¹ Adopted by Council of Ministers Resolution No 156 of 15 July 2003, published in Official Gazette No 66 of 25 July 2003, in force since 1 October 2003, amended and supplemented by: No 69 of 23 August 2005, in force since 23 August 2005, amended by No 78 of 30 September 2005, in force since 1 October 2005, No 40 of 16 May 2006, in force since 5 May 2006.

Atmospheric Air and laying down the technical and quality requirements for liquid fuels and the standards for their lead, sulphur and other harmful substance content (pollutants).

The plan is to use biofuels in the transport sector in pure form or in mixtures as a component in liquid fuels of petroleum origin for internal combustion engines. There are also plans for the compulsory mixing of biofuels with liquid fuels of petroleum origin to be carried out at tax warehouses licensed under the Excise Duties and Tax Warehouses Act.

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.

The Act sets the rate of fuel excise duty for biodiesel and bioethanol at BGN 0 per 1 000 litres, which will permit the widespread use of biofuels.

II. Raw materials for producing biofuels

The energy crops used as a raw material for bioethanol are sugar beet, wheat and maize.

- Sugar beet – In 2006 the cultivated area was 1 356 hectares, and Bulgaria's production is insignificant (26 788 tonnes), despite the favourable climatic conditions. This situation makes it unlikely that it will be used in the near future as a raw material for bioethanol, unless special measures are taken to stimulate its production. The average yield of sugar beet in Bulgaria is 19.76 tonnes a hectare, which corresponds to 1.73 tonnes of alcohol a hectare.
- Wheat is the biggest agricultural product in volume terms: in 2006 production was 3 301 882 tonnes for a cultivated area of 979 924 hectares. The average yield of wheat in Bulgaria is 3.40 tonnes a hectare, which corresponds to 0.97 tonnes of alcohol a hectare.
- Maize is produced on irrigated land, since it thrives in warm, damp conditions. In 2006 the yield was 1 587 805 tonnes from 358 594 hectares. The average yield of maize in Bulgaria is 4.53 tonnes a hectare, which corresponds to 1.43 tonnes of alcohol a hectare.

The energy crops used as a raw material for biodiesel are rape and sunflower.

- In 2006 rape production in the country was 28 463 tonnes from 16 546 hectares. The average yield of rape in Bulgaria is 1.8 tonnes a hectare, which corresponds to 0.63 tonnes of oil a hectare.
- Sunflower plays a very significant role in Bulgarian agriculture. In 2006 755 222 hectares were planted with oil sunflower in Bulgaria and the yield was 1 156 555 tonnes. This makes sunflower the second most important agricultural crop after wheat. The average yield of sunflower in Bulgaria is 1.60 tonnes a hectare, which corresponds to 0.64 tonnes of oil a hectare.

III. Bulgaria's production potential for energy crops

Bulgaria enjoys excellent natural conditions for developing agriculture and forestry. In 2006 the area under cultivation accounted for about 3.09 million hectares or 59.5% of the country's utilised agricultural area. The favourable climate for producing different crops and the availability of farmland and a farming tradition make for a well developed arable and stock farming industry.

The utilised agricultural area in 2006 is 5.190 million hectares or 46.8% of the country's territory. In 2006 over 436 000 hectares or 14.1% of the cultivated area was lying fallow.

IV. National targets for use of biofuels

The national long-term programme for the use of biofuels in transport 2007-2020

Under the ZVAIEB, a national long-term programme is being drafted for the use of biofuels in transport 2007-2020. The programme is based on studies and research carried out under Twinning Contract • G-04-I• -• N-01 "Transposition and Implementation of the environmental acquis on fuel quality control at national level".

When setting national indicative targets for the use of biofuels in the country, account was taken of indicative targets laid down in Directive 2003/30/EC and the new targets for increasing the share of renewable energy sources, especially biofuels, adopted by the European Council at the meeting of 8 and 9 March 2007. The targets for biofuels in these documents are:

- an indicative target of 5.75% by 2010 and
- a 10% binding minimum target to be achieved by all Member States for the share of biofuels in overall EU transport petrol and diesel consumption by 2020, to be introduced in a cost-efficient way.

Taking account of the above targets, the following table presents a forecast of consumption of conventional fuels and biofuels over the period 2008-2020.

Forecast consumption of conventional fuels and biofuels

	Dimension	2005	2008	2009	2010	2015	2020
Conventional fuels	'000 tonnes	1 952.0	2 193.1	2 264.7	2 317.3	2 731.9	3 146.0
Petrols	'000 tonnes	572.0	485.3	456.0	426.0	417.1	370.5
Diesel fuels	'000 tonnes	1 380.0	1 707.8	1 808.7	1 891.3	2 314.8	2 775.5
Biofuels	'000 tonnes	0.0	43.9	79.3	133.2	218.6	314.5
Bioethanol	'000 tonnes	0.0	9.7	16.0	24.5	33.4	37.0
Biodiesel	'000 tonnes	0.0	34.2	63.3	108.7	185.2	277.5
Total fuels	'000 tonnes	1 952.0	2 237.0	2 344.0	2 450.5	2 950.5	3 460.5
<i>National target</i>	%	0.0	2.0	3.5	5.75	8.0	10.0

When calculating the quantity of conventional fuels, account was taken of the trend observed in recent years towards a reduction in the use of petrols and a rise in the use of diesel fuels. In the period 2005-2020 the average annual fall in the use of petrols is 2.2% and the annual increase in the use of diesel fuels 5.6%.

Achieving the national indicative targets will entail attracting and involving not only the distributors of liquid fuels but also public transport and businesses with large fleets of vehicles (ground services at airports, ports, etc.), in which it will be possible to use biofuels in pure form or mixtures with a higher biofuel content.

The consultation process on the national long-term programme for the use of biofuels in transport 2007-2020 is nearing completion and it will then be adopted by the Council of Ministers of the Republic of Bulgaria.

The country's energy balance for 2005 takes no account of the use of biofuels. In 2006 biodiesel consumption totalled 9 562 tonnes. Plants are under construction with a production capacity of:

- 415 000 tonnes of biodiesel by 2010;
- 95 000 tonnes of bioethanol by 2010.

The successful completion of these projects will enable Bulgaria to meet its indicative target for 2010. These projects are currently still investment plans and cannot be used to set higher national targets.

V. Conclusions

In 2006 the Bulgarian government set in motion a number of legislative initiatives for the successful implementation of the requirements of Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels for transport. The application at national level of acts to promote the use of biofuels will lead to wider use of biomass, which will secure the sustainable development of agriculture and forestry.