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## **National report on the promotion of the use of biofuels and other renewable fuels for transport in Romania – 2008**

### **1. Introduction**

Pursuant to Article 4 of Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels for transport, Member States report to the Commission every year prior to 1 July:

- a. the measures taken to promote the use of biofuels or other renewable fuels to replace diesel or petrol for transport purposes,
- b. the national resources allocated to the production of biomass for energy uses other than transport, and
- c. the total sales of transport fuel and the share of biofuels, pure or blended, and other renewable fuels placed on the market for the preceding year. Where appropriate, Member States must report on any exceptional conditions in the supply of crude oil or oil products that have affected the marketing of biofuels.

### **2. Measures to promote the use of biofuels in transport**

#### **Regulatory environment**

The use of biofuels and other renewable fuels for transport is being promoted with the aim of partially replacing petrol and diesel, contributing to achieving certain objectives such as:

- meeting commitments for the reduction of greenhouse gas emissions
- ensuring fuel security in a manner compatible with the environment
- increasing the level of energy independence
- promoting the use of renewable energy sources.

In addition, promoting the use of biofuels creates new opportunities for sustainable rural development, with potential to open up new markets for agricultural products.

Directive 2003/30/EC was transposed in full by Government Decision No 1844/2005 on the promotion of the use of biofuels and other renewable fuels for transport, published in Official Gazette No 44 of 18 January 2006.

Romania must ensure that a minimum percentage of 5.75% of biofuels or other renewable fuels for transport are introduced onto the market by 2010,

calculated on the basis of the energy content of all types of petrol and diesel used in transport.

In order to meet the target, Government Decision No 1844/2005 was amended by Government Decision No 456/2007, published in Official Gazette No 345 of 22 May 2007, which makes provision for the staggered introduction of a minimum percentage of biofuels in conventional fuels, as follows:

- a) from 1 July 2007, diesel with a minimum 2% biofuel content by volume;
- b) from 1 January 2008, diesel with a minimum 3% biofuel content by volume;
- c) from 1 July 2008, diesel with a minimum 4% biofuel content by volume;
- d) from 1 July 2009, petrol with a minimum 4% biofuel content by volume.

## **2.2 Promotion using economic instruments**

Ø Inclusion in the Fiscal Code of a provision exempting energy products that fall within the category of biofuels and other renewable fuels from the payment of excise duty.

This provision forms the subject of Article 201(1)(1) of Law No 571/2003 on the Fiscal Code, as subsequently amended.

Ø Emergency Government Ordinance No 125/2006 approving the direct payment and complementary national direct payment schemes granted for agriculture starting from 2007, and amending Article 2 of Law No 36/1991 on agricultural companies and other forms of agricultural associations, approved with amendments by Law No 139/2007;

Financial assistance is granted to agricultural producers for the cultivation of sunflower, oilseed rape, soya and corn under the single area payments scheme (SAPS) and the payment scheme for energy crops.

Ø Order No 549/2007 establishing the method of implementation, the specific conditions and eligibility criteria for application of the direct area payments scheme for energy crops.

## **2.3. Actions intended to raise awareness of and promote the use of biofuels**

Romania has taken a series of steps to promote the use of biofuels and other renewable fuels. These include the following:

Ø **Study on the strategic approach for the exploitation of production potential and the use of biofuels, and courses of action for the development and use of biomass**, which included the following activities:

- analysis of the current situation;
- identification of the most suitable measures for promoting the use of biofuels and other renewable fuels;
- consultations with stakeholders;
- dissemination of information to increase the use of biomass in transport, electricity and heating.

Ø **Study on the effect on non-adapted vehicles of the use of biofuels in diesel blends in a proportion of more than 5% by volume,**

which included the following activities:

- checking the effects of the use of high concentrations of biofuels on the performance of non-adapted engines;
- measuring polluting emissions from exhaust fumes when biofuels blended with conventional fuels in a proportion greater than 5% are used.

Ø **Public information campaign on the advantages of using biofuels or other renewable fuels,** which included the following activities:

- meetings with economic operators in order to identify the most suitable ways of applying EU-harmonised national legislation on the use of biofuels;
- public information campaigns on the advantages of using biofuels and other renewable fuels, propagated through radio and television programmes, advertisements, brochures, leaflets, etc (examples of leaflets and brochures attached).

### **3. Biomass potential in Romania**

Romania has a total surface area of 238 391 square kilometres; 62% of this is occupied by agricultural land, 28% is forest or other land with forest vegetation, and 10% other types of land (waters, marshes, unproductive land, etc).

Romania's agricultural lands break down into the following classes of suitability:

- § **Class I (very high suitability):** 2.8% of agricultural land; approximately 3.8% of this is arable land.
- § **Class II (good suitability):** 24.7% of agricultural land; approximately 35.9 % of this is arable land.
- § **Class III (average suitability):** 20.8% of agricultural land; approximately 25.3% of this is arable land.

§ **Classes IV and V (poor and very poor suitability):** 51.7% of agricultural land; approximately 35% of this is arable land.

Romania has a total arable area of 9 379 331 hectares.

Given the soil and climate conditions in Romania, the most viable crops for the production of first generation biofuels are:

- ü for the production of biodiesel: oilseed rape, sunflower and soya;
- ü for the production of bioethanol: sugar beet, cereals (grain, corn, etc).

In the existing topogeographical environment, the Strategy for the exploitation of renewable energy sources, approved by Government Decision No 1535/2003, considers Romania as having a high biomass energy potential, estimated at approximately 7 594 thousand TOE\*/year ( $318 \times 10^9$  MJ/year), which represents around 19% of the total consumption of primary resources in 2000, broken down into the following categories of fuel:

- Ø residues from forestry activities and firewood – 1.175 thousand TOE ( $49.8 \times 10^9$  MJ/year);
- Ø wood waste – sawdust and other wood scrap – 487 thousand TOE ( $20.4 \times 10^9$  MJ/year);
- Ø agricultural waste resulting from cereals, corn stalks, plant debris from vines, etc. – 4 799 thousand TOE ( $200.9 \times 10^9$  MJ/year);
- Ø biogas – 588 thousand TOE ( $24.6 \times 10^9$  MJ/year);
- Ø urban household waste and residues – 545 thousand TOE ( $22.8 \times 10^9$  MJ/year).

Biomass is the main rural fuel, being used especially to heat dwellings and water and in cooking.

Biomass accounts for 7% of primary energy demand and 50% of Romania's potential renewable resources.

\*TOE – tonnes oil equivalent

#### **4. Romania's potential as regards biofuel production**

Regarding the necessary raw material (i.e. vegetable oil - sunflower, soya, rape), Romania has the potential to supply approximately 500-550 thousand tonnes/year, which would permit the production of a similar amount of biodiesel (approximately 500-550 thousand tonnes/year). The raw material

needed for the production of first generation bioethanol is approximately 390 thousand tonnes of corn seed and approximately 130 thousand tonnes of wheat.

At present Romania has a production capacity of approximately 300 thousand tonnes/year for biodiesel and approx. 20 thousand tonnes/year for bioethanol.

## **5. National resources allocated to the production of biomass for energy uses other than transport**

As yet there are no official figures on national biomass consumption in 2008.

On the basis of historical data and consultations with specialists from the National Institute of Statistics, biomass consumption in 2008 can be estimated at 3 300 thousand TOE for the production of thermal energy and electricity (including the consumption of firewood in households).

## **6. Total sales of transport fuels - 2008**

<b>Type of fuel</b>	<b>Total sales (tonnes)</b>
Unleaded petrol (min. RON = 95 & < 50 ppm sulphur)	<i>1503257</i>
Unleaded petrol (min. RON = 95 & < 10 ppm sulphur)	<i>113238</i>
<b><i>Total petrol</i></b>	<b><i>1616495</i></b>
<i>Diesel &lt; 50 ppm sulphur</i>	<i>3618728</i>
<i>Diesel &lt; 10 ppm sulphur</i>	<i>701492</i>
<b><i>Total diesel</i></b>	<b><i>4320220</i></b>
<b>Total petrol and diesel</b>	<b><i>5936715</i></b>

## **7. Total sales of biofuels used in transport**

Approximately 138 650 tonnes of biodiesel were used in Romania in 2008, which gives a percentage of 2.33% calculated on the basis of the energy content of all types of petrol and diesel used in transport.

## **8. Quality of biofuels**

The Ministry of Economic Affairs is responsible for implementing the 'Qualitative and quantitative monitoring system for petrol and diesel' marketed in filling stations, approved by Order No 742/2004 of the Minister for Economy and Trade, the annex to which, entitled 'Qualitative monitoring system for petrol and diesel', was replaced by Order No 58/2006 of the Minister for Economic Affairs and Trade.

In 2008, under the 'Qualitative and quantitative monitoring system for petrol and diesel', checks were carried out to determine the fatty acid methyl ester (FAME) content of 116 diesel samples. The checks were performed by bodies recognised by the Ministry of Economic Affairs to carry out sampling of petrol and diesel, in accordance with Order No 907/2004 of the Minister for Economic Affairs and Trade approving the list of recognised bodies carrying out sampling activities, as amended.

The standard used to determine the fatty acid methyl ester (FAME) content in diesel is SR EN 14078:2004.

Under Government Decision No 456/2007, failure to place the mix of biofuels and conventional fuels on the market is punishable by a fine of RON 7 500 to RON 15 000.