

Important notice: this report has been submitted in the language of the Member State, which is the sole authentic version. Translation into the English language is being provided for information purposes only. The European Commission does not guarantee the accuracy of the data or information provided in the translation, nor does it accept responsibility for any use made thereof.

Report for the European Commission on the implementation of European Parliament and Council Directive 2003/30/EC of 8 May 2003

Contents

1. EU legislative framework for biofuels
 - Directive 2003/30/EC
 - Directive 2003/96/EC
2. Czech Republic's commitments under the Directives
3. History of biofuels in the Czech Republic
 - 3.1. Biodiesel
 - 3.2. Bioethanol
4. Czech Republic's biofuel strategy to 2010
5. Steps to implement the strategy
 - 5.1. Biodiesel
 - 5.2. Bioethanol

1. EU legislative framework for the promotion of biofuels

The first EU legislation on biofuels was Council Decision 93/500/EEC of 13 September 1993, which called on Member States to secure for biofuels by 2005 a market share of 5% of total fuel consumption by motor vehicles from renewable energy sources; biofuels were also the subject of a Council opinion of 1 October 1997 on promoting the manufacture of motor fuels containing bioethanol.

In September 2001 the European Commission published its White Paper entitled "European transport policy for 2010: time to decide".

The White Paper states that pollution from transport is a serious problem and the main source of air pollution in urban areas. In this context, the European Automobile Manufacturers Association is committed to reducing average CO emissions from new cars by 25% by 2008. Moreover, additional measures are envisaged at EU level to introduce substitute fuels, in particular biofuels, and to stimulate demand by experimentation.

a) Establishment of a new regulatory framework for alternative fuels

In the short term, biofuels are the most promising form of alternative fuel. In the Green Paper on the security of energy supply, the Commission envisages replacing 20% of conventional fuels in the transport sector with substitute fuels by 2020. Biofuels are to account for 8% of this target. The objective of increased biofuel use is to reduce the EU's energy dependency, help improve the quality of the environment and diversify production and employment in agriculture. The cultivation of crops to produce biofuels should be an area of particular interest under the EU common agricultural policy for creating new economic resources and preserving employment in the rural community.

In the light of these requirements, the European Commission drew up a package of measures to promote alternative fuels, and in particular biofuels, which it presented in Brussels on 7 November 2001.

b) Stimulating demand by experimentation

One of the points already raised in the Green Paper on the security of energy supply was the need to secure new, "cleaner" technologies. Increased attention has therefore been devoted to this issue, especially in the framework of the sixth framework programme of research and development (from 2003). The Commission has also provided financial assistance in the past to several projects on alternative fuels in the framework of the Civitas initiative, which was launched in October 2000 with the aim of implementing selected innovative projects on clean urban transport. A budget of EUR 50 million was allocated under the fifth framework programme of research and development. Fourteen cities were selected for this project (Aalborg, Barcelona, Berlin, Bremen, Bristol, Cork, Gothenburg, Graz, Lille, Nantes, Rome, Rotterdam, Stockholm and Winchester) and 5 cities from the candidate countries were associated (Bucharest, Gdynia, Kaunas, Pécs and Prague).

Regulatory and financial support framework

Biofuels for transport are currently the subject of an action plan and two directives: 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 and Council Directive 2003/96/EC of 27 October 2003 on the taxation of energy products.

These directives set out the regulatory and financial framework for the promotion of biofuels. The action plan maps out a strategy for achieving the target of 20% substitution of conventional fuels by alternative fuels (of which 8% biofuels) by 2020.

Directive 2003/30/EC stipulates the following:

- Member States should ensure that a minimum proportion of biofuels and other renewable fuels is placed on their markets, and, to that effect, should set national indicative targets (priorities).
- The reference value for these targets should be 2 %, calculated on the basis of energy content, of all petrol and diesel for transport purposes placed on their markets by 31 December 2005.
- The reference value for these targets should be 5.75 %, calculated on the basis of energy content, of all petrol and diesel for transport purposes placed on their markets by 31 December 2010.
- Member States must bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 31 December 2004 at the latest. They must inform the Commission immediately thereof.

Furthermore, the Directive states that Member States' policies to promote the use of biofuels should not lead to prohibition of the free movement of fuels that meet the harmonised environmental specifications as laid down in legislation. According to the European Commission, the promotion of biofuels should be consistent with the objective of increased self-sufficiency in raw materials, environmental protection, and related policy objectives and measures within each Member State. The most recent technological research shows that it will be possible to increase the percentage of biofuels in blended fuels. Some countries are already using blends with 10 % biofuels and more. There is a need for further research and development, which the Member States should promote.

Article 16 of European Parliament and Council Directive 2003/96/EC on the taxation of energy products authorises Member States to apply a reduced rate of excise duty to pure biofuels or to biofuels blended with mineral oils which are used as motor fuel.

2. The Czech Republic's commitments under Directive 2003/30/EC

Directive 2003/30/EC requires Member States to inform the European Commission by 1 July each year of

- the measures taken to promote the use of biofuels or other renewable fuels to replace diesel or petrol for transport purposes,
- the national resources allocated to the production of biomass for energy uses other than transport,
- 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 and other renewable fuels.

In their first report (i.e. 2004), Member States must indicate the level of their indicative targets for the first phase.

In the report covering the year 2006, Member States must indicate their indicative targets for the second phase.

3. History of biofuels in the Czech Republic

3.1. Biodiesel

At the beginning of the 1990s the Czech Ministry of Agriculture launched the “Oleo program” (Oil programme) to investigate the scope for converting oilseed rape to an alternative fuel for diesel engines and promoting its establishment on the domestic market. This programme became operational very quickly, primarily as a result of substantial aid from the State, granted on the basis of the Government Resolution No 42 of 22 January 1992.

Some CZK 772.7 million in the form of refundable grants was allocated from the State budget in the years 1991-1995 to establish manufacturing capacity for rapeseed methyl ester (RME).

This State assistance enabled the technical basis for RME production to be established within a very short time. Additional public resources made available under the Oil Programme have already been and are being dedicated exclusively to promoting RME and biodiesel production.

A biodiesel blend, i.e. a blend of diesel and RME containing 31% RME by volume, is produced for the domestic market to the national standard ČSN 656508. This product is distributed separately from conventional diesel at petrol stations.

This type of “green” fuel for diesel engines was introduced in the Czech Republic from 1997. The higher costs and lower energy efficiency of the biofuel component were offset by the payment from 1999 to 2001 of direct subsidies to manufacturers of RME and fuel blends. From 2001 to 30 April 2004, compensation took the form of price rebates for the raw material (oilseed rape) grown on set-aside land and the limit on RME production was partially increased to 230 000 t processed rapeseed oil; in addition, RME producers received direct support for processing rapeseed oil for non-food uses. The aid was paid by the State Agricultural Intervention Fund (SZIF) in the framework of compensation aid and aid for set-aside.

This support will be continued in the form of national aid from the SZIF in the context of non-food uses of agricultural produce. A “Government Order laying down conditions for the granting of financial aid for non-food uses of oilseed rape for the manufacture of rapeseed methyl ester to compensate for the higher costs and lower energy efficiency of methyl ester rapeseed oil incorporated in blended fuel/biodiesel containing 31% rapeseed methyl ester by volume” has been drafted to resolve this problem. The Order is currently awaiting discussion

by the Czech Government. Its adoption was subject to approval by the European Commission (as State aid is involved). The European Commission approved the Czech Republic's plan to promote the manufacture of diesel blends on 30 June 2004.

The aid consists of lower excise duty on blended fuel/biodiesel, in accordance with Act No 353/2003 Coll. on excise duties. The excise duty on a blended fuel/biodiesel containing 31% RME by volume is CZK 6 866 per thousand litres. Compared with excise duty of CZK 9 950 per thousand litres on conventional diesel, this means that RME incorporated in a fuel blend carries zero excise duty.

The quality of RME will be guaranteed according to the standard EN 14214, and provisions on blended fuel/biodiesel containing 31% RME are laid down in Decree No 229/2004 Coll. of the Ministry of Industry and Trade on requirements for fuels for motor vehicles used in land transport and the methods of monitoring their quality.

RME producers

At present there are 14 RME producers in the Czech Republic. They have an actual production capacity of approx. 100 000 tonnes of rapeseed methyl ester annually and a potential capacity of 150 000 tonnes (three-shift operation, 330 days per year). Several types of production technique are used in the production process, depending on the quality standards, and the manufacturing plants have a fairly wide product range. Their annual capacity ranges from 2 000 to 55 000 tonnes of RME.

The main manufacturing capacity is concentrated on three processing plants

- 42 000 tonnes RME — Setuza a.s., Olomouc plant
- 15 000 tonnes RME — Setuza a.s., Mydlovary plant
- 55 000 tonnes RME — Agropodnik a.s., Jihlava — Dobronín

Quality control

RME quality is regularly monitored by the aid provider SZIF in accordance with ČSN 656507/Z1 and the quality of blended fuel/biodiesel by the Czech Trade Inspectorate according to ČSN 656508. ČSN 656507/Z1 has been replaced by the European standard for fatty acid methyl ester, EN 14214, following EU accession.

3.2. Bioethanol

History of the programme

The programme on non-food uses of cereals for bioethanol production was launched by Government Resolution No 125 of 14.2.1996. The objective was to reduce transport emissions and pollution through the use of unleaded petrol with oxygenate and antiknock additives based on bioethanol and to use some of the agricultural surpluses for the manufacture of motor fuels.

Another step in the programme was the Government Resolution of 17 June 1998 on the scope for using bioethanol in the production of alcohol fuel blends, under which the agriculture department was required to create the conditions for implementing the programme. The basic legislative conditions for using bioethanol as a fuel component were established. The legislation in question concerned:

- Act No 61/1997 Coll. on alcohol, §13 of which concerns the use of bioethanol in motor fuels,
- Act No 198/1998 Coll. on excise duties, §29 of which defines exemptions from duty for alcohol used in ETBE manufacture. ETBE will accordingly continue to be used as a component in Natural (unleaded) petrol containing 13-15% ETBE by volume. Act No 129/1999 Coll. on excise duties introduced a refund of excise duty on ethanol used in motor fuel with effect from 1.8.1999. Alcohol fuel for the purposes of this Act means a blend composed of at least 95% petrol and not more than 5% percent alcohol, or a blend composed of at least 85% petrol and not more than 15% ethyl tertiary butyl ether, to which the alcohol has been converted.

Aid for bioalcohol applications was subsequently incorporated in the Ministry of Agriculture's aid chapter, which is part of the State Budget Act. For 1999 a grant was proposed for test production of ETBE at the plant in Kralupy nad Vltavou. 513 tonnes of fermented, dewatered alcohol were processed into 1 057 tonnes ETBE at the plant in 1999. The positive assessment by Česká rafinářská a.s. and its shareholders (AGIP, Conoco, Shell) was instrumental in making this possible. The pilot operation showed that ETBE production is feasible without substantial, costly conversion of the production plant. Bioethanol use was made possible by a direct, non-recoverable grant of CZK 15 per litre of bioethanol. 15% ETBE by volume was added to unleaded (Natural) petrol.

In 2000, CZK 40 million in aid was earmarked, with a subsidy of CZK 3.50 per litre of fermented, dewatered alcohol. In 2001 the use of fermented alcohol for the manufacture of ETBE and also alcohol fuel blends was envisaged. The distilleries have the capacity to produce the relevant quantities. In total, this involves the use of 165 000 hectolitres of alcohol for fuel production purposes. Smaller firms can use fermented alcohol as well for direct mixing with petrol. Aid for the years 2002 and 2003 concerned a minimum quantity.

4. Czech Republic's biofuels strategy to 2010

In the immediate future, alternative fuels that do not require basic modifications to engines — and ideally those that require no modifications at all — are the most advantageous. Biodiesel and bioethanol come into this category. In the long term there will be a need for additional alternative fuels, although these will require fundamental changes to the engine fuel systems.

In addition to their transport uses, biofuels can:

- a) contribute to solving structural problems,
- b) help reduce dependence on imports of mineral oil; which is very significant at a time of rising crude oil prices,
- c) create new opportunities for agriculture,
- d) create new job opportunities,
- e) reduce emissions and contribute to compliance with the Kyoto Protocol.

The above (i.e. the history and benefits of biofuels) explains why the Czech Republic endorses the biofuels programme and considers it a supporting scheme for non-food uses of agricultural land. Support for agriculture and rural development in particular are regarded as accompanying objectives of the aid for the manufacture of biofuels, even after the Czech Republic's accession to the EU.

Czech Republic's reference targets for biofuels

Table 1: Motor fuel consumption in the Czech Republic

Consumption of motor fuels in the Czech Republic							
	Year (outlook only for 2004-2007)						
	2001	2002	2003	2004	2005	2006	2007
	thousand t						
Unleaded petrol	1 974.40	2 033.63	2094.641	2157.48	2222.205	2288.871	2357.537
Diesel	2 668.40	2 975.27	3 317.42	3 698.93	4 124.30	4 598.60	5 127.43
Biodiesel	206.00	210.00	210.00	210.00	210.00	210.00	210.00
LPG	72.00	84.24	98.56	115.32	134.92	157.86	184.69
Total	4 920.80	5 303.14	5 720.62	6 181.72	6 691.43	7 255.32	7 879.66

Table 2: Production of biofuels and their share of liquid fuels

(actual and outlook)

Data	Unit	Year					
		outlook					
		2001	2002	2003	2004	2006	2010
RME production	th. t	39.6	68.8	70	80	100	120
Bioalcohol production	th. t					174	220
Diesel sales in Czech Republic	th. t	2668	2838	3000	3200	3300	3500
Petrol sales in Czech Republic		1 974	2 033	2094	2157	2222	2357
Liquid fuel sales in Czech Republic (diesel + petrol)	th. t	4642	4871	5094	5357	5522	5857
RME share of diesel sales in Czech Republic	%	1.48 1.35e	2.42 2.2e	2.33 2.1e	2.5 2.2 e	3.03 2.75e	3.43 3.1e
Bioethanol share of petrol sales in Czech Republic	%	-	-	-	-	7.8 5.2e	9.3 6.6e

Note: "e" following a figure denotes energy value

Table 3: Impact of bioethanol production on other sectors

	2006	2010
bioethanol production in tonnes	174 020	220 000
bioethanol production in hectolitres	2 000 000	2 800 000
hectares under crop	130 000	175 000
employees in agriculture	2 545	3 274
employees in industry	8 692	11 183
total employees	11 237	14 457

Table 4: Impact of RME production on other sectors

	2006	2010
bioethanol production in tonnes	100 000	120 000
hectares under crop	120 000	144 000
employees in agriculture	2 350	3 500
employees in industry	8 023	8 750
total employees	10 373	12 250

Conclusion:

Table 2 shows the preliminary indicative targets for the Czech Republic. The targets for 2006 clearly exceed the percentage specified by the European Commission. The reasons for this lie in EU accession, and the need to create new opportunities in the countryside and systematically pursue a rural development strategy. This programme in particular is perceived in the Czech Republic as suited to helping achieve this goal (see Table 3 and 4) within a relatively short period. Furthermore, it is difficult to reduce production in the countryside temporarily and subsequently increase it again, as the reduction phase will lead to migration to the towns resulting in uneven economic development. Increasing energy self-sufficiency and efforts to improve the environment are fundamental issues for the Czech Republic.

The above targets should currently be seen as indicative. They will become definitive in the course of 2005, since they depend on the possibilities of the State budget and on agricultural production.

5. Steps to implement the strategy

5.1. Biodiesel — rapeseed methyl ester in diesel

Rapeseed methyl ester (RME) can be characterised unequivocally as a renewable energy source. It is also a “green” fuel which, because of its properties, is environment-friendly and has a favourable impact on limiting the production of greenhouse gases. The utilisation of diesel containing 31% RME by volume for transport purposes will make a positive contribution to environmental protection.

In view of the above, the specific aid formula applied in the Czech Republic is based on the “Community guidelines on State aid for environmental protection (2001/C37/03)”. According to point E 3.3.3 of the Guidelines, Member States may grant operating aid to new plants producing renewable energy that will be calculated on the basis of the external costs avoided.

Aid for green fuels in the Czech Republic in the case of blended fuel/biodiesel containing 31% RME by volume has been incorporated in legislation as follows:

- Act No 353/2000 Coll. on excise duties
 - excise duty on blended fuel/biodiesel containing 31% RME by volume is CZK 6 866 per thousand litres. The reduction compared with the duty on diesel of CZK 9 950 per thousand litres amounts to CZK 3 084 per thousand litres of biofuel.
- the Government Order laying down conditions for the granting of financial aid for non-food uses of oilseed rape for the manufacture of rapeseed methyl ester to compensate for the higher costs and lower energy efficiency of methyl ester rapeseed oil incorporated in blended fuel/biodiesel containing 31% rapeseed methyl ester by volume
 - compensation for the higher costs of producing RME and fuel/biodiesel blends and for the lower energy efficiency of blended fuel represents proposed aid to fuel producers of CZK 9 500 per tonne of processed RME in a 31% blend by volume.
 - The support is limited to 100 000 tonnes per year of processed RME in a fuel/biodiesel blend containing 31% RME by volume.

The implementation of this aid continues the trend in biofuel applications in the Czech Republic to date and prepares the way for subsequent progress — the general admixture of biofuels to diesel and real scope for compliance with Directive 2003/30/EC of the European Parliament and the Council of 8 May 2003 regarding achievement of the indicative targets for biofuels for the years 2005 and 2010. The admixture of biofuels on a large scale is expected to be implemented in the Czech Republic in 2006-2007, once the technical and legislative prerequisites are in place.

5.2. Bioethanol

5.2.1. At its meeting on 6 August 2003, the Czech Government approved by Resolution No 833 a programme of "aid for the production of bioethanol for admixture to petrol, for the replacement of methanol in the production of rapeseed methyl ester and methyl tertiary butyl ester, and as an alternative fuel with promotion of its implementation on the domestic market" (the "programme"), as part of the measures to comply with the national programme for energy conservation and the use of renewable and secondary sources.

In this context the Government called on:

1. The Ministers of Agriculture and Finance to propose a revision of Act No 61/1997 Coll. on alcohol and amending Act No 455/1991 Coll. on trading (Trading Act), as amended by subsequent provisions, and the Czech National Council Act No 587/1992 Coll. on excise duties as amended by subsequent provisions (Alcohol Act) and related implementing provisions, and an amendment to the Excise Duties Act, in order to secure by 30 September 2005 the legal framework for the use in fuel manufacture of bioethanol produced in the Czech Republic from domestic sources.
2. The Ministers of Industry and Trade to propose a revision of Act No 455/1991 Coll. on trading (Trading Act), as amended by subsequent provisions, in order by 30 September 2005 to add the licensed business 'Bioethanol production' to Section 314 of Annex 3 — Licensed Businesses — and to stipulate by 31 January 2005, through an amendment to Decree No 227/2001 Coll. on requirements for fuels for the operation of motor vehicles used in land transport and the methods of monitoring their quality, which biofuels may be used as fuels or fuel admixtures.

3. The Minister of Transport to propose a revision of Act No 56/2001 Coll. on conditions for the operation of vehicles on roads and amending Act No 168/1999 Coll. on liability insurance for damage caused by operation of vehicles and amending certain related acts (the Motor Third-Party Liability Insurance Act), as amended by Act No. 307/1999 Coll., in order by 31 January 2005 to ban the use of fuels based on methanol produced from fossil sources for the purposes of manufacturing fuels.
4. The Ministers of Industry and Trade and of Agriculture to secure the financing the programme with the involvement of the Českomoravská záruční a rozvojová banka, a.s.

5.2.2. Further to this Resolution, Act No 92/2004 Coll. amending the Protection of Air Act No. 86/2002 Coll. and amending certain other Acts (Air Protection Act), as amended by Act No 521/2002 Coll., was adopted. Act No 92/2004 was approved in the light of EU Directive 2003/30/EC. §3(10) stipulates that a minimum quantity of biofuels or other fuels from renewable sources in transport fuels placed on the domestic market must be laid down in implementing provisions.

These implementing provisions will take the form of a Government Resolution consolidating the nomenclature of biofuels and other renewable fuels. It will also lay down quotas for the use of individual types of fuels from renewable sources blended with motor fuels, the method of increasing the minimum biofuel content after 1.1.2006, the storage of motor fuels, checks on compliance with the statutory minimum biofuel content in motor fuels and penalties for failure to comply with the requirements.

5.2.3. The Government is currently focusing attention on compliance with §3(10) of the Air Protection Act, as amended by Act No 521/2002, and Act No 92/2004 in the context of implementing the programme on "aid for the production of bioethanol for admixture to petrol, for the replacement of methanol in the production of rapeseed methyl ester and methyl tertiary butyl ester, and as an alternative fuel with promotion of its implementation on the domestic market", approved by Government Resolution No 833 on 6 August 2003.

In the framework of this Resolution the Government proposes to adopt:

1. A minimum quota for the production of bioethanol intended exclusively for transport purposes on the Czech market under the arrangements laid down in Act No 353/2003 Coll. on excise duties in the version in force ("bioethanol" in the following) for the period from 1.6.2006 to 31.05.2013 of 2 million hectolitres per annum, and rules for the distribution of this quota to the year 2013.

It also proposes to invite:

1. the Deputy Prime Minister and the Minister of Finance:
 - a) to ensure, by 31 December 2004, in accordance with Article 16 of Directive 2003/96/EC on the taxation of energy products that a scheme to promote biofuels used for transport purposes is established in the form of reduced rates of excise duty during the period to 31.05.2013 + amendment to the Act,
 - b) to take measures to preclude the risk of tax evasion resulting from the possible replacement of bioethanol by potable alcohol;

2. the Minister of the Environment and the Minister of Agriculture to present to the Government by 15.10.2004 a proposal for a government order implementing §3(10) of the Air Protection Act (No 86/2002 Coll.), as amended by Act No 521/2002 Coll., and Act No 92/2004 Coll.;

3. the Ministers of Industry and Trade, Agriculture and the Environment to assess the possibility of co-financing the construction of bioethanol manufacturing capacity and the implementation of the programme through the Structural Funds or from national resources as appropriate;

4. the Minister of Agriculture to provide information to the Government by 30.9.2004 on the implementation of the programme and to ensure the intensive cultivation of cereal crops from declared varieties of cereal seed certified in the Czech Republic for the manufacture of bioethanol intended exclusively for transport purposes on the Czech market for the period 1.6.2006 to 31.5.2013;

5. the Minister of Transport and the Minister of Agriculture, in collaboration with the Minister of Industry and Trade and the Minister of the Environment, to secure the possibility of using fuel blends with a higher bioethanol content for transport purposes;

6. the Minister of Agriculture to find solutions to all the problems involved in implementing the programme approved by Government Resolution No 833 of 6 August 2003 with the aid of interdepartmental expert groups appointed on the basis of Government Resolution No 125 of 14 February 1996.