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GAIN Report

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Voluntary Public

Date: 7/29/2015

GAIN Report Number: EZ1509

Czech Republic

Post: Prague

Biofuels Annual 2015

Report Categories:

Biofuels

Oilseeds and Products

Grain and Feed

Agriculture in the Economy

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Report Highlights:

The Czech Republic implemented the EU legislation and has set targets for greenhouse gas (GHG) savings and for the share of biofuels and renewable electricity in transportation on total consumption. Sufficient production capacities and feedstock should allow meeting of those targets.

General Information:

I. Executive Summary

Long term goals of the Czech energy strategy as defined in the State Energy Conception of the Czech Republic 2014 are: safety, competitiveness and sustainability. The Czech biofuel policy reflects that, being also significantly influenced by the European Union policy and regulations. Major energy sources and percent share of total Czech electricity generation based on installed capacities in 2012 are: coal- 52 percent, nuclear – 20 percent, hydropower 11 percent, solar – 10 percent, natural gas – 6 percent, wind – 1 percent.

The target set by the European Commission under the Directive 2009/28/EC is to reach 13 percent share of energy from renewable sources against gross final energy consumption and a 10 percent share of renewable energy sources in transport by 2020. The Czech Republic in general does not have significant problems in meeting its targets, although in 2010 they did not fulfil the target to replace 5.75 percent of energy content of fossil fuels consumed in transportation with biofuels. Blending of biofuels with fossil fuels has been mandatory in the Czech Republic since September 1, 2007.

The Czech Republic has sufficient capacities for biofuel production but they are currently underused. Feedstock for biofuel production is mostly local. Czech producers use locally grown rapeseed for biodiesel and sugar beet and grains as a feedstock for ethanol production. There is exportable surplus of feedstock available.

II. Policy and Programs

Being an EU member, Czech Republic creates biofuels policy in connection with that of the European Union (EU). The regulatory framework for the EU biofuels and biomass market consists of the EU Energy and Climate Change Package (CCP) and the Fuel Quality Directive (FQD). In the Renewable Energy Directive (RED), which is part of the CCP, specific sustainability requirements are laid out for liquid biofuels. These include minimum greenhouse gas emissions reductions, land use and environmental criteria as well as economic and social criteria.

For more details on the EU biofuels policy, situation and market please refer to the [EU-28 Biofuels Annual 2015](#) report in our GAIN system available at <http://gain.fas.usda.gov>.

The Czech Republic transposed the European Renewable Energy Directive (RED) into Act on Air Protection no. 201/2012 and to Government Directive no. 351/2012. Goals stemming from that legislation are:

	Obligation to reduce GHG emissions by (%)	Minimum GHG emissions savings in biofuels (%)	Share of biofuels and renewable electricity in transportation on total consumption (% energy content)
2014 - 2016	2	35	5,71

2017 - 2019	4	50	8,00
2020	6	60	10,00

As a result of RED implementation, domestic production of biofuels gradually grows, as well as trade (mainly intra). In the Czech Republic, local production capacity and feedstock still are not fully used up, therefore no significant third-country imports are foreseen, unless price driven. Many of the producers use ISCC certification.

The Czech Republic has tax incentives for high percentage biofuels, as they are not price competitive on the market with fossil fuels. E85, B30 and B100 are available on the Czech market and are consumed.

Consumption of fossil fuels for transportation in the Czech Republic in the last few years has picked up along with the improving economic situation. Deliveries on the market as published by the Czech Ministry of Industry and Trade were:

	2007	2008	2009	2010	2011	2012	2013	2014
Gasoline (000 MT)	2,098	2,070	2,041	1,858	1,794	1,669	1,570	1,577
Diesel (000 MT)	4,072	4,159	4,093	3,980	4,100	4,087	4,144	4,359

Source: Ministry of Industry and Trade, www.mpo.cz

Projection of fuel use prepared by the Czech Association of Petroleum Industry and Trade (www.cappo.cz) expects that the share of oil based fossil fuels in transportation will decrease to 92 percent in 2020 and to 78 percent in 2030. Consumption of gasoline in 2020 is projected at 1,811,000 MT and diesel consumption at 4,286,000 MT.

III. Ethanol

In 2014, the Czech Republic produced 104,112 MT of bioethanol. The main feedstock used in its production is sugar beet (63 percent), corn (34 percent), and wheat (3 percent). Production capacities involve 4 ethanol plants that could together produce nearly 300,000 MT of bioethanol annually. In 2014, as well as in 2013, only 2 of them were operating.

Year	2007	2008	2009	2010	2011	2012	2013	2014
Production (MT)	26,509	60,236	89,625	94,523	54,412	102,195	104,488	104,112
Consumption (MT)	287	50,721	74,937	69,037	78,961	89,592	86,432	119,042

Source: Ministry of Industry and Trade, www.mpo.cz

E85 consumption in 2014 totaled 23,288 MT. A map of gas stations, where the E85 is available can be found at <http://www.bioethanole85.cz/cerpaci-stanice-e85>. Along with other high-percentage biofuels, E85 is included in a tax incentive program that significantly cuts down the excise tax. Excise tax applied to E85 is therefore only 0.2 CZK per liter (0.008 U.S. \$).

IV. Biodiesel

Production capacities for biodiesel consist of 5 major plants and a few small scale ones, totaling at slightly over 400,000 MT per year. In 2014, only 3 of them produced biodiesel. Czech biodiesel production in 2014 reached 219,316 MT, with rapeseed being the main feedstock.

Year	2007	2008	2009	2010	2011	2012	2013	2014
Production (MT)	81,806	76,672	154,923	197,988	210,092	172,729	181,694	219,316
Consumption (MT)	36,946	88,121	135,572	184,188	245,216	242,267	228,084	300,413

Source: Ministry of Industry and Trade, www.mpo.cz

Consumption of biodiesel has been increasing, as well as diesel consumption. Biodiesel is also a subject for excise tax alleviation. The high-percentage B100 is taxed with only 0.5 CZK per liter (0.02 U.S. \$).

V. Advanced Biofuels

In the Czech Republic, there is one plant (Oleo Chemical) producing biodiesel from animal fat from a rendering plant. Its capacity is reported by media at 62,000 MT per year. The production has been used mainly for export to other European member states so far.

VI. Biomass for Heat and Power

Use of biomass for renewable electricity and heat production has been increasing, with corn silage and agricultural waste being the main feedstock.

Biogas

Biogas has a good potential in the Czech Republic, and the production and number of biogas stations keep rising. Agricultural biogas stations produce approximately 88 percent of biogas in the Czech Republic.

Year	No. of biogas plants	Total capacity (MW)	Electricity production (GWh)	Feedstock
2014	500	392	2,243	Corn silage, hay and straw, industrial and municipal waste

Source: Czech Biogas Association, www.czba.cz

The figures in the table above are as of Jan 1, 2014. Currently there are already over 600 biogas stations, however this number includes also those that have not been through a trial run yet.

Under the Rural Development Program 2014-2020 it is possible to receive support for building biogas stations and facilities producing heat and using cogeneration.

Wood Pellets

Wood pellets have been popular in the Czech Republic, mainly among the producers. Their production has been growing, since they can be successfully exported (e.g. to Austria). Producers use mostly German certification, because of export.

Year	Production (000 MT)/ out of which EN plus certified	Import (000 MT)	Export (000 MT)	Delivered to domestic market (including stocks) (000 MT)
2007	60	0	46	14
2008	135	0	112	23
2009	158	4	134	28
2010	145/12	13	111	50
2011	148/67	19	111	56
2012	157/93	18	128	47
2013	163/124	36	131	68

Source: Ministry of Industry and Trade, www.mpo.cz

The share of EN plus certified pellets on the total wood pellets production has been increasing. The increasing trend in production and exports is expected to continue, consumption has been stagnating (mainly in households, because coal is cheaper and the pellet heaters can burn it as well). According to the Association for Biofuel producers, there is a potential for U.S. Pellets on the Czech market.

VIII. Notes on Statistical Data

N/A

End of report.