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## Romania

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### Romania Biofuels Market Overview

**Report Categories:**

Biofuels

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**Report Highlights:**

Romania completed the process of transposing the EU Renewable Energy Directive in 2012. Romania achieved its national target of share of overall energy from renewable sources in 2015. In 2017 biofuel production is anticipated to increase slightly, while bioethanol production is expected to decline drastically. No changes are expected for fuel blending mandates in 2017, but the rate is set to grow in the case of bioethanol, from 4.5 percent in 2017 to 8 percent in 2018. Biofuel production capacity remains underutilized for both types of biofuels.

*Please note:* This report is to be read in conjunction with the Annual EU 28 Biofuels Annual Report and provides further information on Romanian biofuels market.

## **General Information:**

### **Renewable Energy Directive**

Romania as an EU member of the European Union transposed the EU Renewable Energy Directive (RED) ([Directive 2009/28/EC](#)) on the promotion of the use of energy from renewable sources into national legislation. This Directive establishes a common framework for the promotion of energy from renewable sources. It sets mandatory national targets for the overall share of energy from renewable sources in gross final consumption of energy and for the share of energy from renewable sources in transport.

In August 2010 Romania approved Law 139 concerning the promotion of renewable energy production. A year later the Romanian Government approved Decision No. 935 concerning the promotion of the use of energy from renewable sources, continuing the harmonization process. Order 136 approved in February 2012 was the final step in the process of transposing the Renewable Energy Directive (RED) into national legislation, approving the evaluation criteria for sustainability compliance, as well as assessment and recognition of certifying bodies.

The Renewable Energy Directive (RED) establishes sustainability criteria for biofuels and bioliquids. In Romania economic operators have to show proof of observing sustainability criteria according to the schemes approved by the EU Commission or another Member State. Despite Romania's wide scheme recognition, most of the local producers use the ISCC (International Sustainability and Carbon Certification) scheme. Economic operators are also required to submit with each lot of biofuels introduced on the market information that shows the lot as certified or accepted as fulfilling the requirements of a voluntary scheme, as well as the name of the voluntary scheme.

Each EU member state has its own Europe 20 target for the share of energy from renewable sources. The target defined by Directive 2009/28/EC for the year 2020 was in the case of Romania set at 24 percent of final gross energy consumption from renewable sources. According to the data provided by Eurostat, Romania is among the eleven EU member states that achieved their 2020 targets in 2015. The overall share of energy from renewable sources reached 24.8 percent in 2015 as opposed to its 2020 target of 24 percent. The actual shares pertaining to 2014 exceeded the forecast values in electricity and heating, but were below the anticipated values in the transportation sector. In the case of electricity, hydropower represents the major renewable source, followed by wind and solar. Solid biomass and biogas were the major shares of energy from renewable resources in heating and cooling, of which more than 90 percent represent consumption by household (firewood). Biodiesel and bioethanol had the largest shares in energy consumption from renewable sources in transport.

### **Share of energy from renewable sources (RES)**

(in % of gross final energy consumption)

|                   | Sector              | 2004  | 2012  | 2013  | 2014  | 2015  | 2020 Target |
|-------------------|---------------------|-------|-------|-------|-------|-------|-------------|
| RES-E [%]         | Electricity         | 24.97 | 33.57 | 37.52 | 41.68 | 43.16 | N/A         |
| RES-T [%]         | Transport           | 1.60  | 4.93  | 5.44  | 4.68  | 5.49  | 10          |
| RES-H & C [%]     | Heating and Cooling | 17.56 | 25.83 | 26.19 | 26.74 | 25.89 | N/A         |
| RES – Overall [%] |                     | 16.34 | 22.84 | 23.88 | 24.84 | 24.79 | 24          |

Source: Eurostat

## Biofuel blending mandates

Legislation concerning biofuels in transport has not been amended during the past 4 years. According to current legislation, the target blending rate for biofuels in transport is 10 percent by 2020. Blending mandates for biofuel transport are set on volume (list below). In the case of biofuels produced from wastes, residues, non-food cellulosic material, and ligno-cellulosic material, these values are reduced to half based on origin certificates submitted by the operators. Nevertheless, Romania's biofuel consumption remains heavily based on first generation biofuels. Lack of adequate infrastructure, high cost of investment, and an absence of incentives keep Romania behind other member states in regard to second generation and advanced biofuel production and utilization.

### Biofuel blending mandates

| Years       | Biodiesel (%) | Bioethanol (%) |
|-------------|---------------|----------------|
| 2014 - 2015 | 5.0           | 4.5            |
| 2016 - 2017 | 6.5           | 4.5            |
| 2018- 2020  | 6.5           | 8.0            |

Source: Government Decision 1121/2013

## BIODIESEL

### Production, trade and consumption

Domestic biofuel is produced mainly by two players who are able to control the entire production process, from rapeseeds acquisition to oil extraction and transformation into biodiesel. Rapeseed oil is the major feedstock used for biodiesel production. Romania is an important rapeseed producer in the European Union, so rapeseed oil demand for biodiesel is covered from domestic production. Apart from rapeseed oil, soybean, palm and sunflower oils may be alternatively used depending on availability and technology, but only to a limited extent.

The blending mandate rose from 4 percent in 2008 to 5 percent in 2011 and 6.5 percent in 2016. These mandates are applied to the total annual diesel consumption, which varies between 3.6 – 3.8 million MT/year. If fully utilized, the existing capacity of biodiesel production of about 200,000 MT/year would largely cover domestic demand. Nevertheless, large imports from other EU member states, such as

Poland and Bulgaria, impede local producers from taking advantage of the demand driven by the higher mandate.

Production is forecast to increase slightly in 2017 and 2018, under the assumption that imports will slow down (please see table below). In 2016 biodiesel imports soared from 79,000 MT in 2015 to 120,000 MT. Bulgaria (52,000 MT) and Poland (19,000 MT) were the major suppliers, followed by Spain, Germany, Slovakia, and France (please see Appendix). As a result of the competition from Polish biodiesel producers, Romanian exports fell by 43 percent during January – December 2016, as compared with the previous year. Exports to Bulgaria fell by 85 percent and to Greece by 20 percent.

**Biodiesel – Production, trade and consumption**  
(Thousand tones)

| <b>Calendar Year Begin</b> | <b>01/2016</b> | <b>01/2017</b> | <b>01/2018</b> |
|----------------------------|----------------|----------------|----------------|
| Production                 | 150            | 155            | 160            |
| Import                     | 120            | 110            | 100            |
| <b>Total Supply</b>        | <b>270</b>     | <b>265</b>     | <b>260</b>     |
| Export                     | 33             | 25             | 20             |
| Consumption                | 237            | 240            | 240            |
| TOTAL Use                  | 237            | 240            | 240            |
| <b>Total Distribution</b>  | <b>270</b>     | <b>265</b>     | <b>260</b>     |

*Source: Global Trade Atlas (HS codes 382600 and 271020), FAS estimates*

## BIOETHANOL

### Production, trade and consumption

The blending mandate remained flat at 4.5 percent since January 2014 (Government Decision 1121/2013). That is set to rise to 8 percent starting with January 2018. In Romania there is only one large bio-ethanol producer in Romania whose activity was launched in September 2009, in southern Romania, with production capacity of 80,000 MT/year. The company is part of a large agricultural holding, so it was anticipated that the bioethanol plant would use corn as main feedstock. Depending on corn competitiveness with other raw materials, the producer could switch to other feedstock (wheat). Nevertheless, in 2016 the group, which included this bioethanol producer, experienced some financial difficulties and started insolvency procedures. This led to a downsize in bioethanol production.

Officially published data for production or trade at national level is scarce or outdated, hence these estimates are based solely on market sources. Bioethanol imports are difficult to accurately estimate since there are no specific trade codes and bioethanol is imported blended at various rates with conventional bioethanol. Consequently bioethanol utilization is derived from the blending mandate. The forecast is for a drastic drop in production in 2017 and a partial recovery in 2018 under the assumption that bio-ethanol production will resume. Imports are estimated to cover the demand generated by blending requirements. Considering the blending mandate rise from 4.5 percent in 2017 to 8 percent in 2018 applied to gasoline consumption estimated at 1.5 million MT/year, bioethanol consumption is forecast to follow the same trend and grow almost twice.

**Bioethanol – Production, trade and consumption**  
(Thousand tones)

| <b>Calendar Year Begin</b> | <b>01/2016</b> | <b>01/2017</b> | <b>01/2018</b> |
|----------------------------|----------------|----------------|----------------|
| Production                 | 15             | 5              | 35             |
| Import                     | 52             | 63             | 85             |
| <b>Total Supply</b>        | <b>67</b>      | <b>68</b>      | <b>120</b>     |
| Export                     | 0              | 0              | 0              |
| Consumption                | 67             | 68             | 120            |
| TOTAL Use                  | 67             | 68             | 120            |
| <b>Total Distribution</b>  | <b>67</b>      | <b>68</b>      | <b>120</b>     |

Source: Global Trade Atlas, FAS estimates

## Biomass and Biogas

Biogas production in Romania remains negligible despite high interest shown by the private sector, especially livestock farmers. In the absence of financial incentives to support the investment, there are only a few biogas producers. Solid biomass holds the major share of energy from renewable resources in heating and cooling due to large-scale utilization household consumption (firewood). The progress report submitted by Romania to the EU in 2016 (data for 2013 and 2014) shows the contribution of biomass and biogas in electricity and heat consumption.

**Contribution from solid biomass and biogas to  
electricity and heating and cooling**

|               | <b>Sector</b>           | <b>2013</b> | <b>Share in gross final electricity<br/>consumption (%)</b> | <b>2014</b> | <b>Share in<br/>gross<br/>final heat<br/>and<br/>cooling<br/>consump<br/>tion (%)</b> |
|---------------|-------------------------|-------------|-------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------|
| Solid Biomass | Electricity (GWh)       | 443         | 0.78                                                        | 685         | 2.7                                                                                   |
| Solid Biomass | Heat and cooling (ktoe) | 3,590.7     | 26                                                          | 3,600       | 26.6                                                                                  |
| Biogas        |                         | 19.6        | 0.19                                                        | 20          | 0.15                                                                                  |

Source: Romania Progress Report to EU, 2016

## Domestic Policy and programs

In response to numerous recommendations made by the private sector to encourage investment in renewable energy, the Romanian Government recently approved a scheme to encourage investment in highly-efficient co-generation (Government Decision 215/2017) and energy production based on biomass and biogas (Government Decision 216/2017). These regulations set up *state-aid* support programs to cover up to 45 percent of the project values for building or upgrading production capacities for energy production based on biomass and biogas.

In terms of incentives for transport biofuels, the excise exemption approved in 2008 was repealed in March 2011. Currently there are no incentives of any nature to encourage domestic biofuel production for transport.

## APPENDIX

### Romania Import Statistics

**Commodity: 382600, Biodiesel And Mixtures Thereof, Not Containing Or Containing Less Than 70% By Weight Of Petroleum Oils Or Oils Obtained From Bituminous Materials**

| Year To Date: January - December |      |          |        |         |         |        |        |                       |
|----------------------------------|------|----------|--------|---------|---------|--------|--------|-----------------------|
| Partner Country                  | Unit | Quantity |        |         | % Share |        |        | % Change<br>2016/2015 |
|                                  |      | 2014     | 2015   | 2016    | 2014    | 2015   | 2016   |                       |
| World                            | T    | 4,131    | 58,086 | 106,395 | 100.00  | 100.00 | 100.00 | 83.17                 |
| Bulgaria                         | T    | 3,075    | 8,524  | 52,683  | 74.43   | 14.67  | 49.52  | 518.06                |
| Poland                           | T    | -        | 3,264  | 18,815  | 0.00    | 5.62   | 17.68  | 476.36                |
| Spain                            | T    | -        | 20,278 | 9,955   | 0.00    | 34.91  | 9.36   | - 50.91               |
| Germany                          | T    | -        | -      | 8,471   | 0.00    | 0.00   | 7.96   |                       |
| Slovakia                         | T    | -        | 4,370  | 5,423   | 0.00    | 7.52   | 5.10   | 24.10                 |
| France                           | T    | -        | -      | 5,086   | 0.00    | 0.00   | 4.78   | 0.00                  |
| Italy                            | T    | 8        | 13,207 | 4,950   | 0.19    | 22.74  | 4.65   | - 62.52               |
| Austria                          | T    | -        | 2      | 1,012   | 0.00    | 0.00   | 0.95   |                       |
| Netherlands                      | T    | 999      | 5,097  | -       | 24.19   | 8.78   | 0.00   | - 100.00              |
| Belgium                          | T    | 49       | 3,342  | -       | 1.19    | 5.75   | 0.00   | - 100.00              |

*Source: Global Trade Atlas*

### Romania Export Statistics

**Commodity: 382600, Biodiesel And Mixtures Thereof, Not Containing Or Containing Less Than 70% By Weight Of Petroleum Oils Or Oils Obtained From Bituminous Materials**

| Year To Date: January - December |      |          |        |        |         |        |        |                       |
|----------------------------------|------|----------|--------|--------|---------|--------|--------|-----------------------|
| Partner Country                  | Unit | Quantity |        |        | % Share |        |        | % Change<br>2016/2015 |
|                                  |      | 2014     | 2015   | 2016   | 2014    | 2015   | 2016   |                       |
| World                            | T    | 45,974   | 48,983 | 27,936 | 100.00  | 100.00 | 100.00 | - 42.97               |
| Greece                           | T    | 11,749   | 15,980 | 12,833 | 25.56   | 32.62  | 45.94  | - 19.69               |
| France                           | T    | -        | -      | 10,053 | 0.00    | 0.00   | 35.98  | 0.00                  |
| Bulgaria                         | T    | 30,230   | 27,751 | 4,050  | 65.75   | 56.65  | 14.50  | - 85.41               |
| Italy                            | T    | 3,995    | 1,001  | 1,001  | 8.69    | 2.04   | 3.58   | 0.04                  |
| Austria                          | T    | -        | 1,002  | -      | 0.00    | 2.05   | 0.00   | - 100.00              |
| Croatia                          | T    | -        | 3,249  | -      | 0.00    | 6.63   | 0.00   | - 100.00              |

*Source: Global Trade Atlas*

Previous reports: [Romania revises down the biofuel mandates](#)

End of report.