

IEA-Advanced Motor Fuels ANNUAL REPORT

2019

Spain



Spain

Drivers and Policies

The main policy instrument aimed at fostering the consumption of advanced motor fuels in Spain is the biofuel quota obligation. Mandatory targets for sale or consumption were established in Royal Decree 1085/2015, on the promotion of biofuels. For the years 2019 and 2020, the targets (in energy content) are 7% and 8.5%, respectively. In 2019, double counting of some biofuels entered into force. Certificates can be carried over to the following year (up to 30% of the annual obligation) and can also be traded.

From October 2018 onwards, the new EU-wide harmonized labelling in filling stations is required. Gasoline-type fuels are marked by an “E” inside a circle: E5 (5% vol. ethanol in petrol), E10, etc.; diesel-type fuels, by a “B” inside a square: B7 (7% vol. biodiesel in diesel), B10, etc. or XTL (synthetic diesel); and gaseous-type fuels, by their specific subtype within a rhombus.

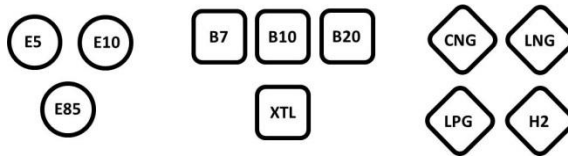


Fig. 1 Examples of symbols used for fuel labelling

Furthermore, the Spanish Alternative Energy Vehicle Incentive Strategy 2014-2020 is the framework for programs intended to promote the purchase of electric, liquefied petroleum gas (LPG), natural gas, and bifuel vehicles.

Advanced Motor Fuels Statistics

Figure 2 shows data on fuel consumption in 2019. Biofuels account for the largest part of alternative transportation fuel in Spain.

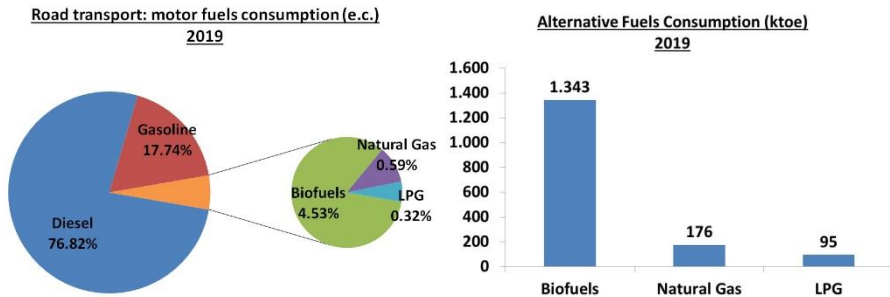


Fig. 2 Fuel Consumption (share in energy content) and Alternative Fuel Consumption (ktoe) in Spain in 2019. Sources: CORES, GASNAM.

Table 1 shows the number of public filling stations with alternative fuels.

Table 1 Filling Stations for Alternative Fuels in Spain

Alternative Fuel		Number of Filling Stations
Biodiesel blends	B20 or lower	39
	B30 or higher	8
Bioethanol blends	E15 or lower	2
	E85	4
LPG		673
Natural gas		89

Sources: MITECO (Geoportal), GASNAM.

Figures 3, 4 and 5 provide information on the feedstock, feedstock origin country, and production country of biofuels consumed in Spain in 2019.

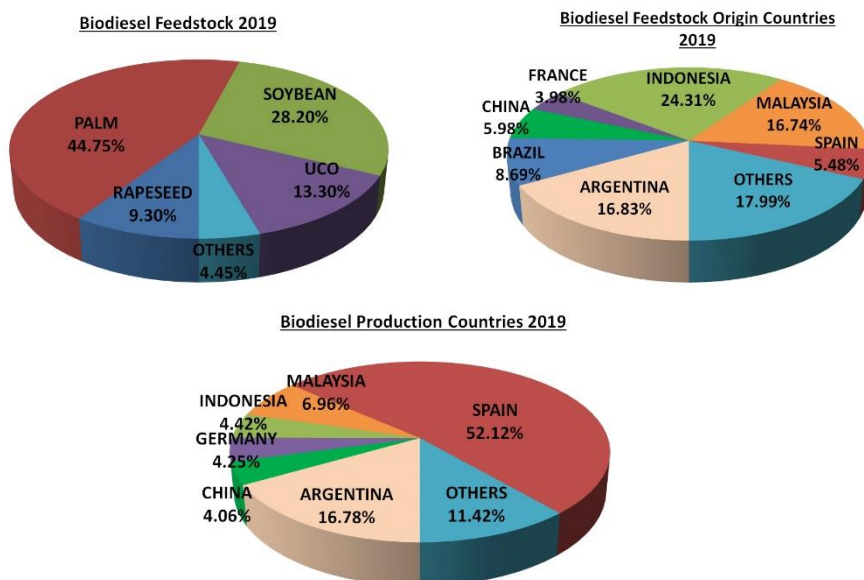


Fig. 3. Feedstock, Feedstock Origin Country, and Production Country of Biodiesel Consumed in Spain in 2019

Source: CNMC.

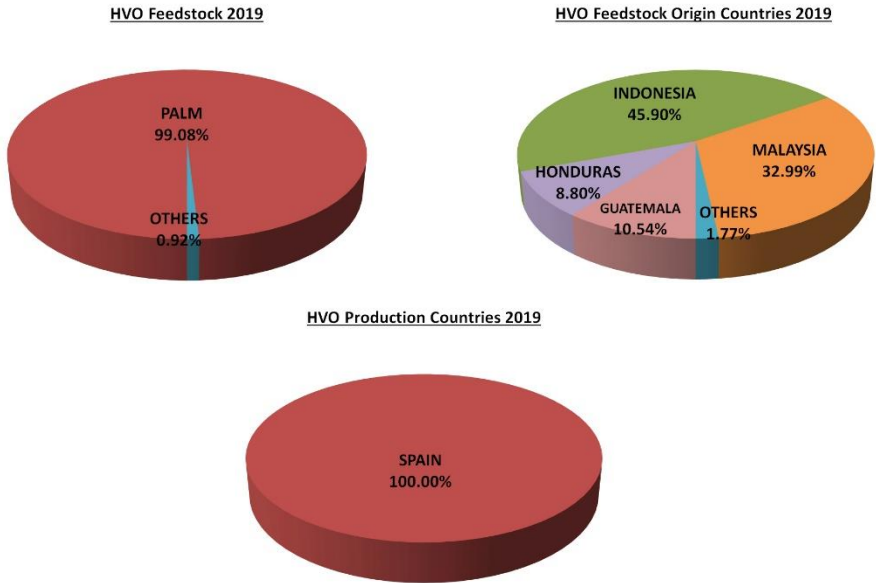


Fig. 4 Feedstock, Feedstock Origin Country, and Production Country of Hydrotreated Vegetable Oil (HVO) Consumed in Spain in 2019

Source: CNMC.

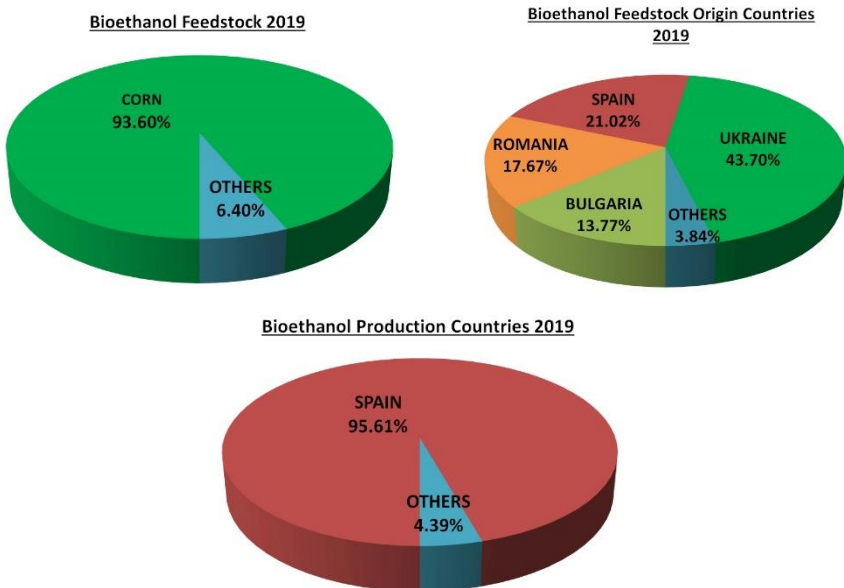


Fig. 5. Feedstock, Feedstock Origin Country and Production Country of Bioethanol Consumed in Spain in 2019 Source: CNMC.

Research and Demonstration Focus

The Spanish State Scientific and Technical Research and Innovation Plan 2017-2020 is the main instrument for developing and achieving the objectives set in the Spanish Strategy for Science and Technology and Innovation 2013-2020, as well as those set in the Europe 2020 Strategy. It includes actions and funding mechanisms aimed at promoting RDI activities which are in line with the Strategic Energy Technology Plan (SET Plan). Regarding advanced motor fuels, research and innovation projects within this State Plan shall address the priority activities included in the SET Plan Action 8 for Bioenergy and Renewable Fuels for Sustainable Transport.

The National Action Framework for Alternative Energies in Transport supports research, development, and innovation by means of specific programs related to creation of clusters for innovation, incentives, cooperation through technology platforms, and support to research centers.

The Draft National Energy and Climate Plan 2021-2030 (NECP), submitted to the European Commission under the Regulation on the governance of the energy union and climate action (EU/2018/1999), addresses general RDI areas, the development of advanced biofuels among them.

Outlook

The National Renewable Energy Action Plan foresees a consumption of biofuels of 2,713 ktoe in 2020 in order to fulfill the targets set in the current Renewable Energy Directive.

The revised Renewable Energy Directive, published in December 2018, sets a specific target for the transport sector. Member States must require fuel suppliers to supply a minimum of 14% of the energy consumed in road and rail transport by 2030 as renewable energy. The contribution of biofuels produced from food and feed crops is limited up to a maximum 7%. Within that 14% there is a dedicated sub-target for advanced biofuels (which are produced from feedstocks listed in Part A of Annex IX of the directive). These fuels must be supplied at a minimum of 0.2% of transport energy in 2022, 1% in 2025 and increasing to at least 3.5% by 2030. A specific methodology for the calculation of such shares (including different multipliers for some technologies) is provided in the directive.

According to the draft NECP, in 2030 the share of renewable energy in transport in Spain will be 28%, well above the target established in the directive. The contribution of biofuels from food and feed crops will be 6.8% and advanced biofuels will reach 3.69%.

The main trends included in the NECP for energy consumption in transport over the next decade are the following:

- There is a relevant decrease in final energy consumption due to increased efficiency and modal shift policies.
- There is a very significant decrease in the consumption of oil products and natural gas as well as a sharp growth of electricity use in vehicles.

The NECP includes a specific measure for the promotion of biofuels in transport. It consists of several actions aimed at supporting biofuels production and consumption, inter alia, mandatory targets, aid programmes for advanced biofuels facilities and consumption objectives for aviation biofuels. In this regard, the Draft Law on Climate Change and Energy Transition also contains provisions on the establishment of a quota obligation for sustainable aviation fuels.

Additional Information Sources

- Bioplat: Spanish Biomass Technology Platform, www.bioplat.org.
- CNMC: National Markets and Competition Commission, www.cnmc.es (in Spanish).
- CORES: Corporación de Reservas Estratégicas (Oil Stockholding Agency), www.cores.es (in Spanish).
- GASNAM: Spanish Association of Natural Gas for Mobility, www.gasnam.es (in Spanish).
- Geoportal (MITECO): Filling Stations, www.geoportalgasolineras.es (in Spanish).
- IDAE: Instituto para la Diversificación y Ahorro de la Energía (Institute for Energy Diversification and Saving), www.idae.es (in Spanish).
- MITECO: Ministry for Ecological Transition and Demographic Challenge www.miteco.gob.es (in Spanish).

Major changes

The Draft National Energy and Climate Plan is the new framework for renewable energy in the transport sector, including biofuels. It has been developed in accordance with the revised Renewable Energy Directive for the period 2021-2030.

Benefits of participation in AMF

Membership in the AMF TCP provides wider and easier access to information on advanced motor fuels, as well as helpful analyses that can be used to guide national policies and programs.