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Motor Vehicle Biofuels: United States

August 2018



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About This Report

Scope & Method

This report forecasts to 2022 US motor vehicle biofuels demand and production in gallons. Total demand and production are segmented by type in terms of:

- fuel ethanol
- biodiesel
- other biofuels, such as renewable diesel

To illustrate historical trends, total demand, production, and the various segments are provided in annual series from 2007 to 2017.

This report focuses on biofuels used in the motor vehicle market. With the exception of renewable jet fuel – a small amount of which is included in the Other Biofuels aggregate – biofuels for other markets, such as heating, are excluded. Biogas – a methane-rich fuel derived from the breakdown of organic matter – is also excluded. Figures exclude the fossil fuel portion of blended fuels.

In this report, the term “fuel ethanol” denotes ethanol produced from biological raw materials (ie, biomass). Synthetic ethanol, such as that derived from the direct hydration of ethane, is excluded from the scope of this report. Other common fuels and chemicals bear the “bio-” prefix when derived from biomass and used either directly or as components of motor vehicle fuel.

This report quantifies trends in various measures of growth and volatility. Growth (or decline) expressed as an average annual growth rate (AAGR) is the least squares growth rate, which takes into account all available datapoints over a period. The volatility of datapoints around a least squares growth trend over time is expressed via the coefficient of determination, or r^2 . The most stable data series relative to the trend carries an r^2 value of 1.0; the most volatile – 0.0. Growth calculated as a compound annual growth rate (CAGR) employs, by definition, only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the expected trend beginning in the base year and ending in the forecast year. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

Key macroeconomic indicators are also provided with quantified trends. Other various topics, including profiles of pertinent leading suppliers, are covered in this report. A full outline of report items by page is available in the Table of Contents.

Sources

Motor Vehicle Biofuels: United States (FF45035) represents the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources including:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- national, regional, and international non-governmental organizations
- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other reports and studies by The Freedonia Group

Specific sources and additional resources are listed in the Resources section of this publication for reference and to facilitate further research.

Industry Codes

Table 7 | NAICS & SIC Codes Related to Motor Vehicle Biofuels

NAICS/SCIAN 2007		SIC	
North American Industry Classification System		Standard Industrial Classification	
311221	Wet Corn Milling	2046	Wet Corn Milling
324110	Petroleum Refineries	2869	Industrial Organic Chemicals, NEC
325193	Ethyl Alcohol Mfg	2911	Petroleum Refining
325199	All Other Basic Organic Chemical Mfg		

Source: US Census Bureau

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Resources

The Freedonia Group

Freedonia Industry Studies

Global Hybrid & Electric Vehicles, May 2018

North American Medium- & Heavy-Duty Truck Aftermarket, February 2018

Global Industrial Enzymes, January 2018

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Crude Petroleum: United States

Energy: United States

Fertilizers: United States

Field Crop Seeds: United States

Global Industrial Enzymes

Hybrid & Electric Vehicles: United States

Motor Vehicles: United States

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Ethanol Producer Magazine

ICIS Chemical Business

IHS Chemical Week

Oils & Fats International

Agencies & Associations

American Coalition for Ethanol

American Fuel & Petrochemical Manufacturers

National Biodiesel Board

Renewable Fuels Association

United States Census Bureau

United States Department of Agriculture

United States Department of Energy

United States Energy Information Administration

United States Environmental Protection Agency

United States International Trade Commission