Flex-Fuel Vehicle Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 100 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License $4750.00
- Team License (1-7 Users) $5250.00
- Site License $6500.00
- Corporate License $8750.00

Report description:

The flex-fuel vehicle market is expected to register a CAGR of over 5% during the forecast period, 2022 - 2027. The market was valued at USD 104 billion in 2021, and it is anticipated to reach USD 143 billion by 2027.

The market for flex-fuel vehicles (FFV) has not been impacted by the COVID-19 pandemic as severely as other automotive industries. However, with limited options for an FFV in the market, it did witness a slight decline in sales, considering the restrictions imposed by the respective governments. However, with the situation easing and life returning to normalcy, the FFV market is anticipated to grow during the projected period.

Most of the vehicles running are fueled using conventional fossil fuels, which has led to an increase in toxic exhaust gas emissions. To control vehicular pollution, multiple county governments have put forth several emission restrictions for IC (internal combustion) engine-powered vehicles. These restrictions have opened the scope for research on vehicles running on flex fuels.

In the market, there are various categories and types of FFV from E10 to E85 and above. According to the tests conducted, FFVs running on E85 fuel produce 23% less NOx, 30% less CO, and 4-6% lower CO2. Due to numerous factors, including the reduced tailpipe emissions, domestic production capabilities of ethanol-based fuels, and limiting the use of naturally occurring fossil fuels, the demand for FFVs is expected to increase during the forecast period.

The demand for flex-fuel vehicles is growing significantly in the United States and the Latin American region. It is estimated that more than 84% of the world's ethanol is produced by the United States and Brazil.

Flex Fuel Vehicle Market Trends

Ratification of Stringent Exhaust Emission Regulations

The increase in vehicle exhaust emissions from all types of vehicles using fossil fuels has contaminated the atmosphere. The poor air quality has led to an increase in a plethora of serious respiratory diseases. In Europe alone, vehicular pollution contributes to over 30% of total air pollution, including NOx, VOCs, PM2.5, PM10, and others.

To bring exhaust emissions under control, country-specific vehicle authorities have barricaded the production of greenhouse gasses like NOx, SOx, and other harmful pollutants from vehicle tailpipes.

For instance, in Europe, the exhaust emission norms have become even more strict over the years. According to the regulatory authority European Environmental Agency (EEA), in Euro 4 launched in 2005, the NOx standards were affixed at 0.08g/km, whereas in 2009, it got reduced to 0.06g/km, and it has remained the same for light passenger cars since.

Similarly, for CO2 emissions in 2015, standard passenger cars were not allowed to exceed 130g/km of CO2. In 2020, it was revised to 95g/km. The European Commission also targets to reduce this number to 70g/km by 2025.

The reduced amount of greenhouse gases from the exhaust will have a significant impact on health in the long run. Alongside, this will also allow the flex-fuel market to witness an increase in demand in the upcoming years as it is a clean-burning fuel as compared to conventional gasoline or diesel.

Asia-Pacific to Witness Significant Growth

More than 70% of the countries in the Asia-Pacific region currently rely upon the import of fossil fuels to run vehicles. The cost of crude oil and its refinement significantly increases the consumer cost of fuel. With emerging markets like India and China, the Asia-Pacific region is expected to witness significant growth.

For instance, in India, to curb the consumption of fossil fuels and tone down the fuel cost, MoRTH (Ministry of Road Transport and Highways) has put forward various deadlines to introduce ethanol-based fuel in the country. Additionally, India accounts for 2% of the global flex-fuel production, which is not enough to fulfill the country's requirements. Hence, the domestic production of ethanol is targeted to rise from 70 to 150 million liters in the next few years.

The transport ministry is planning to roll out the use of ethanol-based fuel in phases. E10 production is expected to be in motion from April 2022 and E20 from 2025. Various vehicle manufacturers in the country have also been notified to scale up the research to run vehicles on E10 from April 2023 and E20 from April 2025.

As flex fuels can be manufactured domestically using renewable materials like sugar cane, the ethanol-blended fuel will reduce the quantity of raw fuel imported, helping reduce the fuel cost for end users.

With the increase in the availability of ethanol-based flex-fuel, the demand for flex-fuel vehicles may witness significant growth as India is the world's second-most populated country.

Flex Fuel Vehicle Market Competitor Analysis

The flex-fuel vehicle market constitutes various players accounting for a consolidated market. Owing to a wide range of products running on flex fuels and constant developments to find an alternative fuel, the top five players in the market account for more than 60% of the total market share. For instance, General Motors has about 13 vehicle models, Ford Motor Co. has 11 vehicle

models, and Stallintis NV has seven vehicle models running on ethanol blend fuel.

The top five players include General Motors, Ford Motor Co., Toyota Motor Corp., Stellantis NV, Honda Motor Co., and Hyundai Motor Co. Other players include Nissan Motor Company, Subaru Corporation, and Volkswagen AG.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

Table of Contents:

Flex-Fuel Vehicle Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 100 pages | Mordor Intelligence

To place an Order with Scotts International:

- - Print this form
- - Complete the relevant blank fields and sign
- - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	$4750.00
	Team License (1-7 Users)	$5250.00
	Site License	$6500.00
	Corporate License	$8750.00
	VAT	
	Total	

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*		Phone*	
First Name*		Last Name*	
Job title*			
Company Name*		EU Vat / Tax ID / NIP number*	
Address*		City*	
Zip Code*		Country*	
		Date	2026-02-27
		Signature