Global Hydrogen Fuel Cell Vehicle Market Information By Technology (Proton Exchange Membrane Fuel Cell, Alkaline Fuel cell, Solid Oxide Fuel Cell), By Vehicle Type(Commercial Vehicle and Passenger Cars)and Region - Forecast To 2023

Market Synopsis

The global hydrogen fuel cell vehicle market is constantly evolving, and is expected to witness high growth over the forecast period. The development of new and diversified technologies, is creating exciting opportunities within the automotive industry. Conventional vehicles run on gasoline or diesel, whereas, fuel cell cars and trucks combine hydrogen and oxygen to produce electricity, which runs the motor. A fuel cell car is entirely powered by electricity and is considered an electric vehicle. It can store and quickly replenish a large amount of energy as well as it is a good option for drivers who need longer range and more cargo capability. It is also a boon for those who lack access to home recharging. It has primarily been designed to decrease the weight and to improve driving experience. One of the reasons for the interest in hydrogen fuel cell vehicles (HFCVs), is its significant potential to reduce emissions from the transportation sector. Unlike gasoline- and diesel-powered vehicles, they do not create any greenhouse gas (GHG) emissions during vehicle operation. Despite the several drivers of growth, there might be barriers, which would limit the marketability. The entirely new and expensive infrastructure system, and the cost of the HFCVs are some of those barriers.

A new trend in research and development carried out by automotive manufacturers into fuel efficiency with focus on advantageous locations for production and short-distance supply to reduce costs. Hydrogen fuel cell vehicle market is expected to flourish during the forecast period due to the major driving factors such focus on high-quality products, changing lifestyle of consumers and rising spending power. Automotive companies including passenger car manufacturers are constantly trying to emphasize more on innovation for their product offering in order to enhance the efficiency in automotive sector.

The hydrogen fuel cell vehicle market is undergoing various changes with evolving customer expectations, acceleration of technological innovation, and shifts in competitive power. Increasing number of funding commitments for the commercialization and development of refueling infrastructure will be crucial factors for the growth of the market in the years to come. The global hydrogen fuel cell vehicle market has been segmented, based on technology, of which the proton exchange membrane fuel cell (PEMFC) segment accounted for the largest market share in the forecasted period. On the basis of vehicle type, it is segmented into commercial car and passenger cars. Passenger cars segment stands at the first place, and is expected to grow further in the forecast period. Hydrogen fuel cell vehicle market is expected to grow at a CAGR of more than 8.12%.

Hydrogen Fuel Cell Vehicle Market, By Segment
Regional Analysis

In terms of geography, North America accounted for the majority market share and will continue to dominate the market in the forecast period. California continues to witness unparalleled leadership in the area of FCV incentives and hydrogen infrastructure. The state's ongoing planning and support led it to be one of the first places in the world to have commercial zero-emission FCVs on its roadways. The developments of hydrogen fueling infrastructure are majorly accelerated by companies such as Toyota Motor Sales, and countries such as U.K., Germany, Japan, and California has announced plans to help the funding of hydrogen fueling station.

Asia Pacific is expected to see significant growth due to the large demand and production of automobiles. Also development of automotive manufacturing industries in economies such as Japan and South Korea continued their strong support of fuel cell technology.

The key players of global hydrogen fuel cell vehicle market includes Toyota Motor Sales, USA, Inc. (Japan), The Hyundai Motor Company (South Korea), Daimler AG (Mercedes-Benz) (Germany), BMW (Germany), General Motors Company (U.S.), Groupe Renault (France), Mazda Motor Corporation (Japan), Hydrogenics (Canada), Kia Motor Corporation (South Korea), Tata Motors Limited (India).

Toyota believes hydrogen will be a leading energy carrier and has just started sales of the MIRAI FCV in 2015. Toyota has announced the royalty-free use of approximately 5,000 fuel cell related patents till the end of 2020. Moreover, Toyota, Nissan, and Honda have announced partial financial support for the operation of hydrogen stations in Japan.

The report for Global Hydrogen Fuel Cell Vehicle Market of Market Research Future comprises of extensive primary research along with the detailed analysis of qualitative as well as quantitative aspects by various industry experts, key opinion leaders to gain the deeper insight of the market and industry performance. The report gives the clear picture of current market scenario which includes historical and projected market size in terms of value and volume, technological advancement, macro economical and governing factors in the market. The report provides details information and strategies of the top key players in the industry. The report also gives a broad study of the different market segments and regions.
2.4 Forecast Model

3... Market Dynamics
3.1 Market Drivers
3.2 Market Inhibitors
3.3 Supply/Value Chain Analysis
3.4 Porter’s Five Forces Analysis

4... Global Hydrogen Fuel Cell Vehicle Market, By Technology
4.1 Introduction
4.2 Proton Exchange Membrane Fuel Cell
4.3 Alkaline Fuel cell
4.4 Solid Oxide Fuel Cell

5... Global Hydrogen Fuel Cell Vehicle Market, By Vehicle Type
5.1 Introduction
5.2 Commercial Vehicle
5.3 Passenger Cars

8 Regional Market Analysis
8.1 Introduction
8.2 North America
8.2.1 U.S.
8.2.2 Canada
8.3 Europe
8.3.1 U.K
8.3.2 France
8.3.3 Germany
8.3.4 Spain
8.3.5 Rest of Europe
8.4 Asia Pacific
8.4.1 China
8.4.2 Japan
8.4.3 India
8.4.4 Rest of Asia-Pacific
8.5 Rest of the World

9... Competitive Analysis
9.1 Introduction
9.2 Competitive Scenario
9.2.1 Market Share Analysis
9.2.2 Market Development Analysis
9.2.3 Technology/Service Benchmarking
9.3 The Toyota Mirai (Japan)
9.3.1 Overview
9.3.2 Product/Service Offering
9.3.3 Strategy
9.4 The Hyundai Motor Company (South Korea)
9.4.1 Overview
9.4.2 Product/Service Offering
9.4.3 Strategy
9.5 Daimler AG (Mercedes-Benz) (Germany)
9.5.1 Overview
9.5.2 Product/Service Offering
9.5.3 Strategy
9.6 BMW (Germany)
9.6.1 Overview
9.6.2 Product/Service Offering
9.6.3 Strategy
9.7 General Motors Company (U.S.)
9.7.1 Overview
9.7.2 Product/Service Offering
9.7.3 Strategy
9.8 Groupe Renault (France)
9.8.1 Overview
9.8.2 Product/Service Offering
9.8.3 Strategy
9.9 Mazda Motor Corporation (Japan)
9.9.1 Overview
9.9.2 Product/Service Offering
9.9.3 Strategy
9.10 Hydrogenics (Canada)
9.10.1 Overview
9.10.2 Product/Service Offering
9.10.3 Strategy
9.11 Kia Motor Corporation (South Korea)
9.11.1 Overview
9.11.2 Product/Service Offering
9.11.3 Strategy
9.12 Tata Motors Limited (India)
9.12.1 Overview
9.12.2 Product/Service Offering
9.12.3 Strategy