

# Global Fuel Cell Market: Size, Trend, Share, Opportunity Analysis, and Forecast, 2014-2025

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## Abstracts

Fuel cells are the devices that electrochemically convert chemical energy of fuel into electricity. These devices promote chemical reaction thereby combining hydrogen and oxygen to produce electricity, water, and heat. Fuel cells do not burn fuel and do not emit toxic gases; thus, they are pollution-free and more efficient than combustion technologies. Fuel cells are employed in stationary powers, such as data centers, residential sites, and telecommunications; transportation powers, such as passenger cars, buses, fuel cell electric vehicles (FCEVs), specialty vehicles, material handling equipment (MHE), and others; and portable devices. Per the U.S. Department of Energy, more than 60,000 fuel cells accounting for 300 MW, were shipped worldwide in 2015 with 65% growth as compared with that in 2014. The global fuel cell market is expected to grow at a CAGR of 15.5% from 2017 to 2025.

The global fuel cell market is segmented based on type, application, and geography. Based on type, the market is divided into polymer/proton exchange membrane fuel cells (PEM), solid oxide fuel cells (SOFC), molten carbonate fuel cells (MCFC), phosphoric acid fuel cells (PAFC), direct methanol fuel cells (DMFC), and others. On the basis of application, it is categorized into stationary, transportation, and portable power. Geographic breakdown and deep analysis of each of the aforesaid segments have resulted in the following regions: North America, Europe, Asia-Pacific, and LAMEA.

## MARKET DYNAMICS:

Drivers:

Higher energy density in fuel cells compared with battery

Requirement of more resilient energy systems

Advantage over the backup power option

New technologies in hydrogen storage

#### Restraints:

High cost of catalyst

Unavailability of fuel cell infrastructure in developing nations

#### MARKET PLAYERS:

The top players in the global solar energy market include AFC Energy PLC., Aisin Seiki Co. Ltd., Bloom Energy Corporation, Ceramic Fuel Cells Limited, Doosan Corporation, Fuelcell Energy, Inc., Hydrogenics Corporation, Kyocera Corporation, Panasonic Corporation, and Toshiba Corporation.

#### KEY TAKEAWAYS

#### MARKET LANDSCAPE

##### By Type

Polymer/Proton Exchange Membrane Fuel Cells (PEM)

Solid Oxide Fuel Cells (SOFC)

Molten Carbonate Fuel Cells (MCFC)

Phosphoric Acid Fuel Cells (PAFC)

Direct Methanol Fuel Cells (DMFC)

Others

## By Application

Stationary

Transportation

Portable Power

## By Geography

North America

U.S.

Canada

Mexico

Europe

UK

Germany

France

Spain

Italy

Rest of Europe

Asia-Pacific

China

Japan

India

Australia

South Korea

Rest of Asia-Pacific

LAMEA

Brazil

Saudi Arabia

South Africa

Rest of LAMEA

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