

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

https://marketpublishers.com/r/GFA99746A1EEN.html

Date: February 2017

Pages: 0

Price: US\$ 3,619.00 (Single User License)

ID: GFA99746A1EEN

# **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



# **Contents**

#### 1. EXECUTIVE SUMMARY

- 1.1. Key Findings
- 1.2. Market Attractiveness and Trend analysis
- 1.3. Competitive Landscape and recent industry development analysis

#### 2. INTRODUCTION

- 2.1. Report Description
- 2.2. Scope and Definitions
- 2.3. Research Methodology

#### 3. MARKET LANDSCAPE

- 3.1. Growth Drivers
  - 3.1.1. Impact Analysis
- 3.2. Restrains and Challenges
  - 3.2.1. Impact Analysis
- 3.3. Porter's Analysis
  - 3.3.1. Bargaining power of buyers
  - 3.3.2. Bargaining power of suppliers
  - 3.3.3. Threat of substitutes
  - 3.3.4. Industry rivalry
  - 3.3.5. Threat of new entrants
- 3.4. Global Fuel Cell Market Shares Analysis, 2014-2025
  - 3.4.1. Global fuel cell market share by type, 2014-2025
  - 3.4.2. Global fuel cell market share by application, 2014-2025
  - 3.4.3. Global fuel cell market share by geography, 2014-2025

#### 4. MARKET BY TYPE

- 4.1. Polymer/Proton Exchange Membrane Fuel Cells (PEM)
  - 4.1.1. Historical Market Size by Region, 2014-2016
  - 4.1.2. Market Forecast by Region, 2017-2025
- 4.2. Solid Oxide Fuel Cells (SOFC)
- 4.2.1. Historical Market Size by Region, 2014-2016
- 4.2.2. Market Forecast by Region, 2017-2025



- 4.3. Molten Carbonate Fuel Cells (MCFC)
  - 4.3.1. Historical Market Size by Region, 2014-2016
  - 4.3.2. Market Forecast by Region, 2017-2025
- 4.4. Phosphoric Acid Fuel Cells (PAFC)
- 4.4.1. Historical Market Size by Region, 2014-2016
- 4.4.2. Market Forecast by Region, 2017-2025
- 4.5. Direct Methanol Fuel Cells (DMFC)
  - 4.5.1. Historical Market Size by Region, 2014-2016
  - 4.5.2. Market Forecast by Region, 2017-2025
- 4.6. Others
  - 4.6.1. Historical Market Size by Region, 2014-2016
  - 4.6.2. Market Forecast by Region, 2017-2025

#### 5. MARKET BY APPLICATION

- 5.1. Stationary
  - 5.1.1. Historical Market Size by Region, 2014-2016
  - 5.1.2. Market Forecast by Region, 2017-2025
- 5.2. Transportation
  - 5.2.1. Historical Market Size by Region, 2014-2016
  - 5.2.2. Market Forecast by Region, 2017-2025
- 5.3. Portable Power
  - 5.3.1. Historical Market Size by Region, 2014-2016
  - 5.3.2. Market Forecast by Region, 2017-2025

#### 6. MARKET BY GEOGRAPHY

- 6.1. North America
  - 6.1.1. U.S.
    - 6.1.1.1. Historical Market Size, 2014-2016
    - 6.1.1.2. Market Forecast, 2017-2025
  - 6.1.2. Canada
    - 6.1.2.1. Historical Market Size, 2014-2016
    - 6.1.2.2. Market Forecast, 2017-2025
  - 6.1.3. Mexico
    - 6.1.3.1. Historical Market Size, 2014-2016
    - 6.1.3.2. Market Forecast, 2017-2025
- 6.2. Europe
  - 6.2.1. UK



- 6.2.1.1. Historical Market Size, 2014-2016
- 6.2.1.2. Market Forecast, 2017-2025
- 6.2.2. Germany
  - 6.2.2.1. Historical Market Size, 2014-2016
  - 6.2.2.2. Market Forecast, 2017-2025
- 6.2.3. France
  - 6.2.3.1. Historical Market Size, 2014-2016
  - 6.2.3.2. Market Forecast, 2017-2025
- 6.2.4. Spain
  - 6.2.4.1. Historical Market Size, 2014-2016
- 6.2.4.2. Market Forecast, 2017-2025
- 6.2.5. Italy
  - 6.2.5.1. Historical Market Size, 2014-2016
- 6.2.5.2. Market Forecast, 2017-2025
- 6.2.6. Rest of Europe
  - 6.2.6.1. Historical Market Size, 2014-2016
  - 6.2.6.2. Market Forecast, 2017-2025
- 6.3. Asia-Pacific
  - 6.3.1. China
    - 6.3.1.1. Historical Market Size, 2014-2016
    - 6.3.1.2. Market Forecast, 2017-2025
  - 6.3.2. Japan
    - 6.3.2.1. Historical Market Size, 2014-2016
    - 6.3.2.2. Market Forecast, 2017-2025
  - 6.3.3. India
    - 6.3.3.1. Historical Market Size, 2014-2016
  - 6.3.3.2. Market Forecast, 2017-2025
  - 6.3.4. Australia
    - 6.3.4.1. Historical Market Size, 2014-2016
    - 6.3.4.2. Market Forecast, 2017-2025
  - 6.3.5. South Korea
    - 6.3.5.1. Historical Market Size, 2014-2016
    - 6.3.5.2. Market Forecast, 2017-2025
  - 6.3.6. Rest of Asia-Pacific
    - 6.3.6.1. Historical Market Size, 2014-2016
  - 6.3.6.2. Market Forecast, 2017-2025
- 6.4. LAMEA
  - 6.4.1. Brazil
  - 6.4.1.1. Historical Market Size, 2014-2016



- 6.4.1.2. Market Forecast, 2017-2025
- 6.4.2. South Arabia
  - 6.4.2.1. Historical Market Size, 2014-2016
  - 6.4.2.2. Market Forecast, 2017-2025
- 6.4.3. South Africa
  - 6.4.3.1. Historical Market Size, 2014-2016
  - 6.4.3.2. Market Forecast, 2017-2025
- 6.4.4. Rest of LAMEA
  - 6.4.4.1. Historical Market Size, 2014-2016
  - 6.4.4.2. Market Forecast, 2017-2025

#### 7. COMPANY PROFILES

- 7.1. AFC Energy PLC.
  - 7.1.1. Overview
  - 7.1.2. Financials and business segments
  - 7.1.3. Recent developments
- 7.2. Aisin Seiki Co. Ltd.
  - 7.2.1. Overview
  - 7.2.2. Financials and business segments
  - 7.2.3. Recent developments
- 7.3. Bloom Energy Corporation
  - 7.3.1. Overview
  - 7.3.2. Financials and business segments
  - 7.3.3. Recent developments
- 7.4. Ceramic Fuel Cells Limited
  - 7.4.1. Overview
  - 7.4.2. Financials and business segments
  - 7.4.3. Recent developments
- 7.5. Doosan Corporation
  - 7.5.1. Overview
  - 7.5.2. Financials and business segments
  - 7.5.3. Recent developments
- 7.6. Fuelcell Energy Inc.
  - 7.6.1. Overview
  - 7.6.2. Financials and business segments
  - 7.6.3. Recent developments
- 7.7. Hydrogenics Corporation
  - 7.7.1. Overview



- 7.7.2. Financials and business segments
- 7.7.3. Recent developments
- 7.8. Kyocera Corporation
  - 7.8.1. Overview
  - 7.8.2. Financials and business segments
  - 7.8.3. Recent developments
- 7.9. Panasonic Corporation
  - 7.9.1. Overview
  - 7.9.2. Financials and business segments
  - 7.9.3. Recent developments
- 7.10. Toshiba Corporation
  - 7.10.1. Overview
  - 7.10.2. Financials and business segments
  - 7.10.3. Recent developments



# **List Of Tables**

#### LIST OF TABLES

- Table 1. Fuel Cell Market Share, by Type, 2014-2025, \$million
- Table 2. Fuel Cell Market Share, by Application, 2014-2025, \$million
- Table 3. Fuel Cell Market Share, by Region, 2014-2025, \$million
- Table 4. Fuel Cell Market Value for Polymer/Proton Exchange Membrane Fuel Cells (PEM), by Region, 2017-2025, \$million
- Table 5. Fuel Cell Market Value for Solid Oxide Fuel Cells (SOFC), by Region, 2017-2025, \$million
- Table 6. Fuel Cell Market Value for Molten Carbonate Fuel Cells (MCFC), by Region, 2017-2025, \$million
- Table 7. Fuel Cell Market Value for Phosphoric Acid Fuel Cells (PAFC), by Region, 2017-2025, \$million
- Table 8. Fuel Cell Market Value for Direct Methanol Fuel Cells (DMFC), by Region, 2017-2025, \$million
- Table 9. Fuel Cell Market Value for Others, by Region, 2017-2025, \$million
- Table 10. Fuel Cell Market Value for Stationary, by Region, 2017-2025, \$million
- Table 11. Fuel Cell Market Value for Transportation, by Region, 2017-2025, \$million
- Table 12. Fuel Cell Market Value for Portable Power, by Region, 2017-2025, \$million
- Table 13. Fuel Cell Market Value for North America, by Country, 2014-2025, \$million
- Table 14. Fuel Cell Market Value for North America, by Type, 2014-2025, \$million
- Table 15. Fuel Cell Market Value for North America, by Application, 2014-2025, \$million
- Table 16. Fuel Cell Market Value for Europe, by Country, 2014-2025, \$million
- Table 17. Fuel Cell Market Value for Europe, by Type, 2014-2025, \$million
- Table 18. Fuel Cell Market Value for Europe, by Application, 2014-2025, \$million
- Table 19. Fuel Cell Market Value for Asia-Pacific, by Country, 2014-2025, \$million
- Table 20. Fuel Cell Market Value for Asia-Pacific, by Type, 2014-2025, \$million
- Table 21. Fuel Cell Market Value for Asia-Pacific, by Application, 2014-2025, \$million
- Table 22. Fuel Cell Market Value for LAMEA, by Country, 2014-2025, \$million
- Table 23. Fuel Cell Market Value for LAMEA, by Type, 2014-2025, \$million
- Table 24. Fuel Cell Market Value for LAMEA, by Application, 2014-2025, \$million
- Table 25. AFC Energy PLC. Company Snapshot
- Table 26. Aisin Seiki Co. Ltd. Company Snapshot
- Table 27. Bloom Energy Corporation Company Snapshot
- Table 28. Ceramic Fuel Cells Limited Company Snapshot
- Table 29. Doosan Corporation Company Snapshot
- Table 30. Fuelcell Energy Inc. Company Snapshot



- Table 31. Hydrogenics Corporation Company Snapshot
- Table 32. Kyocera Corporation Company Snapshot
- Table 33. Panasonic Corporation Company Snapshot
- Table 34. Toshiba Corporation Company Snapshot



# **List Of Figures**

#### LIST OF FIGURES

- Table 1. Fuel Cell Market Value, by Type, 2014-2025, \$million
- Table 2. Fuel Cell Market Value, by Application, 2014-2025, \$million
- Table 3. Fuel Cell Market Value, by Region, 2014-2025, \$million
- Table 4. Fuel Cell Market Value for Polymer/Proton Exchange Membrane Fuel Cells (PEM), by Region, 2017-2025, \$million
- Table 5. Fuel Cell Market Value for Solid Oxide Fuel Cells (SOFC), by Region, 2017-2025, \$million
- Table 6. Fuel Cell Market Value for Molten Carbonate Fuel Cells (MCFC), by Region, 2017-2025, \$million
- Table 7. Fuel Cell Market Value for Phosphoric Acid Fuel Cells (PAFC), by Region, 2017-2025, \$million
- Table 8. Fuel Cell Market Value for Direct Methanol Fuel Cells (DMFC), by Region, 2017-2025, \$million
- Table 9. Fuel Cell Market Value for Others, by Region, 2017-2025, \$million
- Table 10. Fuel Cell Market Value for Stationary, by Region, 2017-2025, \$million
- Table 11. Fuel Cell Market Value for Transportation, by Region, 2017-2025, \$million
- Table 12. Fuel Cell Market Value for Portable Power, by Region, 2017-2025, \$million
- Table 13. Fuel Cell Market Value for North America, by Country, 2014-2025, \$million
- Table 14. Fuel Cell Market Value for North America, by Type, 2014-2025, \$million
- Table 15. Fuel Cell Market Value for North America, by Application, 2014-2025, \$million
- Table 16. Fuel Cell Market Value for Europe, by Country, 2014-2025, \$million
- Table 17. Fuel Cell Market Value for Europe, by Type, 2014-2025, \$million
- Table 18. Fuel Cell Market Value for Europe, by Application, 2014-2025, \$million
- Table 19. Fuel Cell Market Value for Asia-Pacific, by Country, 2014-2025, \$million
- Table 20. Fuel Cell Market Value for Asia-Pacific, by Type, 2014-2025, \$million
- Table 21. Fuel Cell Market Value for Asia-Pacific, by Application, 2014-2025, \$million
- Table 22. Fuel Cell Market Value for LAMEA, by Country, 2014-2025, \$million
- Table 23. Fuel Cell Market Value for LAMEA, by Type, 2014-2025, \$million
- Table 24. Fuel Cell Market Value for LAMEA, by Application, 2014-2025, \$million
- Table 25. AFC Energy PLC. Company Snapshot
- Table 26. Aisin Seiki Co. Ltd. Company Snapshot
- Table 27. Bloom Energy Corporation Company Snapshot
- Table 28. Ceramic Fuel Cells Limited Company Snapshot
- Table 29. Doosan Corporation Company Snapshot
- Table 30. Fuelcell Energy Inc. Company Snapshot



Table 31. Hydrogenics Corporation - Company Snapshot

Table 32. Kyocera Corporation - Company Snapshot

Table 33. Panasonic Corporation - Company Snapshot

Table 34. Toshiba Corporation - Company Snapshot

#### **COMPANIES MENTIONED**

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.



#### I would like to order

Product name: Global Fuel Cell Market: Size, Trend, Share, Opportunity Analysis, and Forecast,

2014-2025

Product link: https://marketpublishers.com/r/GFA99746A1EEN.html

Price: US\$ 3,619.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

# **Payment**

First name:

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <a href="https://marketpublishers.com/r/GFA99746A1EEN.html">https://marketpublishers.com/r/GFA99746A1EEN.html</a>

To pay by Wire Transfer, please, fill in your contact details in the form below:

Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <a href="https://marketpublishers.com/docs/terms.html">https://marketpublishers.com/docs/terms.html</a>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970

