

# Global and China Fuel Cell Industry Chain Report, 2019-2025

<https://marketpublishers.com/r/G0CAABB1E30EN.html>

Date: June 2019

Pages: 195

Price: US\$ 2,800.00 (Single User License)

ID: G0CAABB1E30EN

## Abstracts

The thriving research on fuel cell is a result of global fossil fuel resources to be exhausted within a century. Hydrogen fuel cell as a kind of renewable resource has plenty of merits: (1) an energy conversion efficiency of as high as 50%-60%; (2) zero pollution, zero emission; (3) modular design, low maintenance cost; (4) many ways to produce hydrogen fuel since hydrogen is the most fundamental element in nature.

Global total sales of hydrogen fuel cell vehicles including passenger cars and buses exceeded 10,000 units between 2013 and 2018. Global ownership of fuel cell vehicles will surge to 5.01 million units in 2032 from 10,000 units in 2018, and sales revenue will soar from USD400 million in 2018 to USD255.2 billion in 2032, with accumulative total of USD1.2 trillion during the period. Fuel cell vehicle will be the fastest-growing automobile market segment worldwide before 2050.

Global fuel cell market will be worth RMB328.1 billion in 2025, including RMB2 billion of the portable type, RMB141.9 billion of the fixed type and RMB184.2 billion of those for transport equipment. Fuel cell vehicle market will boom after 2020.

By the end of 2018, there had been more than 13 cities in China working on demonstration and promotion of fuel cell vehicles, including Yunfu City and Foshan City in Guangdong, Chengdu in Sichuan, Shanghai, Beijing, Zhangjiakou in Hebei, Xinbin Manchu Autonomous County in Liaoning, Wuhan in Hubei, Zhengzhou in Henan, Rugao City, Yancheng City and Suzhou City in Jiangsu, and Datong City in Shanxi. Vehicles piloted in these cities cover fuel cell buses, fuel cell coaches, fuel cell light buses and fuel cell logistics vehicles.

Among the 1,527 units of fuel cell vehicles sold in China in 2018, 1,418 units, or 93% of

the total, were fuel cell buses; 109 units, or 7% of the total, were fuel cell trucks. It can be seen that buses were the mainstream product. In 2018, China's shipments of fuel cell stack for vehicles approximated 50MW, and key suppliers were Sunrise Power Co., Ltd., Shanghai Re-Fire Technology Co., Ltd., Bing Energy Inc. and Beijing SinoHytec Co., Ltd..

Fuel cell vehicle market will take off after 2020, with its annual sales expected to post 3 million units around 2030.

Global and China Fuel Cell Industry Chain Report, 2019-2025 highlights the following:

Fuel cell (classification, applications and development trends);

Global fuel cell industry (overview, patent, shipments, market size, etc.);

Fuel cell development in Japan, South Korea, Europe, the United States, China, etc., and the gap between the Chinese market and the global market;

Global fuel cell vehicle industry chain (including fuel cell system, cell stack, components, hydrogen fuel, etc.) (mainstream suppliers, technology, cost, etc.);

7 global fuel cell system manufacturers (operation, technology, development plan, and output & sales);

10 Chinese fuel cell system manufacturers and 10 suppliers on the industry chain (operation, technology, development plan, and output & sales).

## Contents

### **1 OVERVIEW OF FUEL CELL**

- 1.1 Operating Principle
- 1.2 Classification
- 1.3 Applications
- 1.4 Development Trends

### **2 GLOBAL FUEL CELL INDUSTRY**

- 2.1 Overview
- 2.2 Market Size
- 2.3 System Suppliers
- 2.4 Global Fuel Cell Vehicle (FCV) Market
  - 2.4.1 Advantages
  - 2.4.2 R&D and Introduction (1993-2015)
  - 2.4.3 Promotion (2015-2025)
  - 2.4.4 Popularization (after 2025)
- 2.5 Global Fuel Cell Vehicle (FCV) Sales

### **3 FUEL CELL INDUSTRY IN MAJOR COUNTRIES**

- 3.1 Japan
  - 3.1.1 Micro-CHP Development
  - 3.1.2 FCV Development
- 3.2 South Korea
  - 3.2.1 Policies
  - 3.2.2 FCV Development
- 3.3 North America
  - 3.3.1 Policies
  - 3.3.2 Fuel Cell Forklift Development
  - 3.3.3 Stationary Power Plant
- 3.4 Europe
  - 3.4.1 Policies
  - 3.4.2 FCV
- 3.5 China
  - 3.5.1 Policies
  - 3.5.2 Fuel Cell System

- 3.5.3 Key Materials
- 3.5.4 Fuel Cell Accessories
- 3.5.5 Promotion of FCV
- 3.5.6 Operation of Fuel Cell Bus
- 3.5.7 Typical Companies on Fuel Cell Industry Chain
- 3.5.8 Construction of Hydrogen Refueling Stations

## **4 FUEL CELL VEHICLE INDUSTRY CHAIN**

- 4.1 Comparison between Fuel Cell Vehicle and Lithium Battery Vehicle
- 4.2 Fuel Cell System
- 4.3 Fuel Cell Stack
  - 4.3.1 Technology Roadmap
  - 4.3.2 Electrode (Catalyst)
  - 4.3.3 Electrolyte Membrane
  - 4.3.4 Bipolar Plate
- 4.4 Fuel Cell Cost and Outlook
  - 4.4.1 Cost of Fuel Cell System
  - 4.4.2 Cost of Fuel Cell Materials
- 4.5 Hydrogen Fuel
  - 4.5.1 Hydrogen Production
  - 4.5.2 Hydrogen Storage and Transport
  - 4.5.3 Total Cost of Hydrogen Production, Storage and Transport
  - 4.5.4 Vehicle Hydrogen Storage Tank and Its Safety
  - 4.5.5 Hydrogen Refueling Station
- 4.6 Fuel Cell Vehicle Feasibility
  - 4.6.1 Cost
  - 4.6.2 Technology
  - 4.6.3 Cost of Use
  - 4.6.4 Technological Level of Toyota Mirai Fuel Cell Car

## **5. GLOBAL FUEL CELL SYSTEM MANUFACTURERS**

- 5.1 Plug Power
  - 5.1.1 Profile
  - 5.1.2 Operation
  - 5.1.3 Fuel Cell Products
  - 5.1.4 Clients
  - 5.1.5 Collaborations and Acquisitions

## 5.2 Ballard Power

### 5.2.1 Profile

### 5.2.2 Operation

### 5.2.3 Products

### 5.2.4 Clients

### 5.2.5 Development & Outlook

## 5.3 FuelCell

### 5.3.1 Profile

### 5.3.2 Operation

### 5.3.3 Products

### 5.3.4 Clients

## 5.4 HYGS

### 5.4.1 Profile

### 5.4.2 Operation

### 5.4.3 Products

### 5.4.4 Clients

## 5.5 SFC Power

### 5.5.1 Profile

### 5.5.2 Operation

### 5.5.3 Products

### 5.5.4 Collaborations

## 5.6 Bloom Energy

### 5.6.1 Profile

### 5.6.2 Operation

### 5.6.3 Products

### 5.6.4 Clients

## 6 CHINESE FUEL CELL SYSTEM MANUFACTURERS

### 6.1 Shanghai Shenli Technology Co., Ltd.

#### 6.1.1 Profile

#### 6.1.2 Operation

#### 6.1.3 Products

#### 6.1.4 R&D

#### 6.1.5 Collaborations

### 6.2 Sunrise Power Co., Ltd.

#### 6.2.1 Profile

#### 6.2.2 Operation

#### 6.2.2 Products

- 6.2.3 Development & Outlook
- 6.2.4 Technology
- 6.3 Wuhan WUT New Energy Co., Ltd.
  - 6.3.1 Profile
  - 6.3.2 Products
  - 6.3.3 R&D
  - 6.3.4 Clients
  - 6.3.5 Development & Outlook
- 6.4 Beijing Azure Hydrogen Energy Science & Technology Co., Ltd.
  - 6.4.1 Profile
  - 6.4.2 Products
  - 6.4.3 R&D
  - 6.4.4 Clients
  - 6.4.5 Collaborations
  - 6.4.6 Development & Outlook
- 6.5 Beijing SinoHytec Co., Ltd.
  - 6.5.1 Profile
  - 6.5.2 Operation
  - 6.5.3 Fuel Cell Products
  - 6.5.4 R&D of Fuel Cells
  - 6.5.5 Construction of Hydrogen Refueling Stations
- 6.6 Zhongshan Broad-Ocean Motor Co., Ltd.
  - 6.6.1 Profile
  - 6.6.2 Operation
  - 6.6.3 R&D
  - 6.6.4 Collaborations
  - 6.6.5 Development & Outlook
- 6.7 Guangdong Sino Synergy Technology Co., Ltd.
  - 6.7.1 Profile
  - 6.7.2 Operation
  - 6.7.3 R&D
  - 6.7.4 Development & Outlook
- 6.8 Beijing Nowogen Technology Co., Ltd.
  - 6.8.1 Profile
  - 6.8.2 Products
  - 6.8.3 R&D
  - 6.8.4 Collaborations
- 6.9 Dongfang Electric (Chengdu) Hydrogen Fuel Cell Technology Co., Ltd.
  - 6.9.1 Profile

6.9.2 R&D

6.9.3 Collaborations

6.10 Jiangsu Horizon Fuel Cell Technologies Co., Ltd.

6.10.1 Profile

6.10.2 Operation

6.10.3 R&D

6.10.4 Products

## **7 CHINESE FUEL CELL SUPPLY CHAIN MANUFACTURERS**

7.1 Jiangsu Huachang Chemical Co., Ltd.

7.1.1 Profile

7.1.2 Operation

7.1.3 Fuel Cell Business

7.2 Shanghai 3F New Materials Technology Co., Ltd.

7.2.1 Profile

7.2.2 Operation

7.2.3 Fuel Cell Business

7.3 Dongyue Group Co., Ltd.

7.3.1 Profile

7.3.2 Operation

7.3.3 Fuel Cell Business

7.4 Sino-Platinum Metals Co., Ltd.

7.4.1 Profile

7.4.2 Operation

7.4.3 Fuel Cell Business

7.5 Hynertech Co., Ltd.

7.5.1 Profile

7.5.2 R&D

7.5.3 Development & Outlook

7.6 Shanghai TL Chemical Co., Ltd.

7.6.1 Profile

7.7 Shanghai Sunwise New Energy Systems Co., Ltd.

7.7.1 Profile

7.7.2 Fuel Cell Products

7.8 Bing Energy Inc.

7.8.1 Profile

7.8.2 R&D

7.8.3 Fuel Cell Business

## 7.9 Shanghai Re-Fire Technology Co., Ltd.

### 7.9.1 Profile

### 7.9.2 Fuel Cell Products

### 7.9.3 R&D

## 7.10 Shanghai Fuel Cell Vehicle Powertrain Co., Ltd.

### 7.10.1 Profile

### 7.10.2 Fuel Cell Business



## I would like to order

Product name: Global and China Fuel Cell Industry Chain Report, 2019-2025

Product link: <https://marketpublishers.com/r/G0CAABB1E30EN.html>

Price: US\$ 2,800.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G0CAABB1E30EN.html>

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

First name:  
Last name:  
Email:  
Company:  
Address:  
City:  
Zip code:  
Country:  
Tel:  
Fax:  
Your message:

**\*\*All fields are required**

Customer signature \_\_\_\_\_

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

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