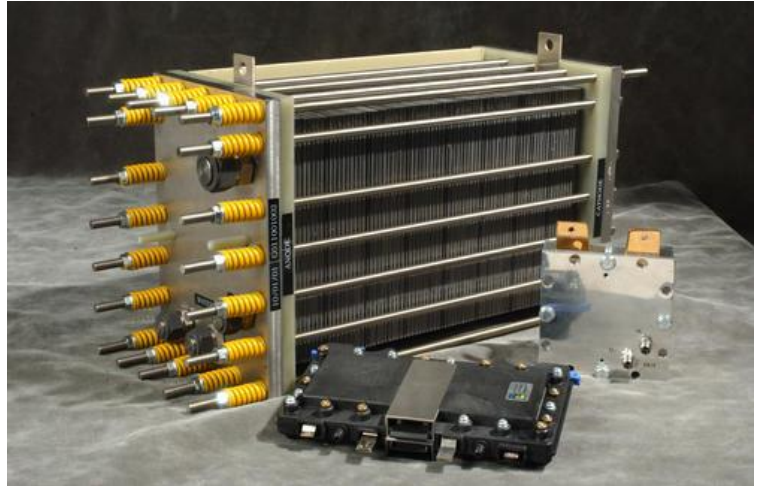


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# World Fuel Cells

April 2014



## Highlights

### World Overview and Forecasts

Demand by Chemistry | Demand by Application | Fuel Cell Spending Trends

### Regional Trends and Forecasts

Regional Demand Overview | North America | Western Europe | Asia/Pacific  
Other Regions

### Industry Structure

Industry Composition and Characteristics | Additional Companies Cited

### Resources

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## ABOUT THIS REPORT

### Scope & Method

This report forecasts total world commercial fuel cell demand in 2017 by chemistry, application, and major world region in US dollars at the manufacturers' level. Chemistry segments include:

- proton exchange membrane
- solid oxide
- molten carbonate
- phosphoric acid
- direct methanol
- other chemistries such as alkaline.

Commercial fuel cell demand is defined as all revenues derived from the sale of fuel cell products and the performance of related services, including pre-commercialization activities like prototyping and test marketing.

Reported applications encompass:

- electric power generation
- industrial stationary and motive power
- motor vehicles
- other transportation equipment
- other applications such as portable electronics.

Major world regions include:

- North America
- Western Europe
- Asia/Pacific
- all other regions.

Demand by chemistry is also forecast for each major world region. To illustrate historical trends world, chemistry, application, and regional demand are provided for 2007 and 2012. Further, regional demand is segmented by application for 2012. Finally, world fuel cell spending is segmented by major world region and provided for 2007, 2012, and 2017.

Forecasts are developed via the identification and analysis of pertinent statistical relationships and other historical trends/events as well as their expected progression/impact over the forecast period. Changes in quantities between reported years of a given total or segment are typically provided in terms of five-year compound annual growth rates (CAGRs). For the sake of brevity, forecasts are generally stated in smoothed CAGR-based descriptions to the forecast year, such as "demand is projected to rise 3.2% annually through 2017." The result of any particular year over that period, however, may exhibit volatility and depart from a smoothed, long-term trend, as

historical data typically illustrate. Demand in US dollars reflects local-currency inflation from period to period, including to the forecast year. Furthermore, US dollar values represent current, average-annual exchange rates between local currencies and the US dollar for the historical periods, including the base year. The forecast year, however, assumes the same exchange rate used for the base year. Other various topics, including profiles of pertinent leading suppliers, are covered in this report. A full outline of report items by page is available in the [Table of Contents](#).

## Sources

*World Fuel Cells* is based on [a comprehensive industry study](#) published by The Freedonia Group in April 2014. Reported findings represent the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources including:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- national, regional, and international non-governmental organizations
- trade associations and their publications
- the business and trade press
- The Freedonia Group Consensus Forecasts dated June 2013
- the findings of other industry studies by The Freedonia Group.

Specific sources and additional resources are listed in the [Resources](#) section of this publication for reference and to facilitate further research.

## Industry Codes

The topic of this report is related to the following industry codes:

NAICS/SCIAN 2007		SIC	
North American Industry Classification System		Standard Industry Codes	
221119	Other Electric Power Generation	3621	Motors and Generators
335312	Motor and Generator Mfg	3629	Electrical Industrial Apparatus, NEC
335911	Storage Battery Mfg	3691	Storage Batteries
335999	All Other Miscellaneous Electrical Equipment and Component Mfg	3714	Motor Vehicle Parts and Accessories
336350	Motor Vehicle Transmission and Power Train Parts Mfg	4911	Electric Services (other electric power generation)

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