

# Solid Oxide Fuel Cells: Technologies and Global Markets

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## Abstracts

### Report Scope:

This report will cover solid oxide fuel cells used in transport applications as well as stationary power generation and storage applications. Target markets are based on optimistic, pessimistic and consensus alternatives, which are compared to the conventional power generation target and peak shifting opportunities. The current market is emerging with pre-commercial demos and subsidized pilot projects as well as fast-growing niche markets that are quickly becoming established specialty markets.

Over the next five years, these pilots will be expanding into commercial implementations. The 2026 market is also characterized with recent developments in the industry and government initiatives across the globe.

SOFC applications are described and analyzed. The following applications are considered -

Combined heat and power (CHP).

Power generation (stationary power units, remote power, and auxiliary power units [APUs]).

Portable product power.

Exotic (solid oxide electrolyzer cells and fuel cell hybrids).

Geographical scope of the report covers North America, Asia-Pacific, Europe

and Rest of the World.

SOFC companies are listed, and their detailed profiles are discussed in the Company Profiles chapter.

Report Includes:

79 tables

An overview of the global market and technologies for solid oxide fuel cells

Estimation of the market size and analyses of global market trends, with data from 2020, 2021 with projections of compound annual growth rates (CAGRs) through 2026

Highlights of the market potential for solid oxide fuel cells market, based on application, end-use industry, and region

Coverage of history, comparison and characteristics of major fuel cell types and cost analysis of SOFC; and information on recent commercial developments, government initiatives and subsidies

Discussion on environmental impact of various types of solid oxide fuel cells

Market share analysis of the key companies of the industry and coverage of their proprietary technologies, strategic alliances, and other key market strategies and a relevant patent analysis

Comprehensive company profiles of the leading players, including Bloom Energy, Fuji Electric, H2e Power Systems Inc., Mitsubishi Heavy Industries Ltd., Rolls-Royce Fuel Cell Systems and Toyota

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ARISTON HOLDING N.V.  
BLASCH PRECISION CERAMICS  
BLOOM ENERGY  
BTU INTERNATIONAL INC.  
BTU CHINA  
CALIFORNIA INSTITUTE OF TECHNOLOGY (CALTECH)  
CERAMATEC INC.  
CERES POWER  
CHAO ZHOU THREE-CIRCLE (GROUP) CO., LTD.  
CHUBU ELECTRIC POWER CO., INC.  
CLARA VENTURE LABS  
CONVION OY

CUMMINS INC.  
DANA INC.  
DDI ENERGY  
DELPHI AUTOMOTIVE  
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DOOSAN FUEL CELL  
EBZ ENTWICKLUNGS  
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ELCOGEN AS  
EMPRISE CORP.  
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ENRG INC.  
EZELLERON INC.  
FEV MOTORENTECHNIK GMBH  
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FUELCELL ENERGY  
FUEL CELL TECHNOLOGIES  
FUJI ELECTRIC  
FUTURE E FUEL CELL SOLUTIONS GMBH  
GENERAL ELECTRIC COMPANY  
GEORGE WESTINGHOUSE RESEARCH AND TECHNOLOGY PARK  
H2E POWER SYSTEMS INC.  
HALDOR TOPSOE A/S/TOPSOE FUEL CELL  
HC STARCK GMBH  
HOSOKAWA POWDER TECHNOLOGY RESEARCH INSTITUTE  
ITN ENERGY SYSTEMS INC.  
K-STYLE ADVANCED CERAMICS CO., LTD.  
KANSAI ELECTRIC POWER CO., INC.  
KERAFOL (INELTRO HALMER ELECTRONICS GMBH)  
LILLIPUTIAN SYSTEMS  
LOGANENERGY CORP.  
MATERIALS & SYSTEMS RESEARCH INC.  
MEIDENSHA CORP.  
MERIDIAN ENERGY, LTD.  
MERLONI TERMOSANITARI SPA (ARISTON THERMO GROUP)  
MITSUBISHI HEAVY INDUSTRIES, LTD.  
MONTANA STATE UNIVERSITY

NEXCERIS  
NGIMAT CO.  
NGK INSULATORS LTD.  
NIPPON TELEGRAPH & TELEPHONE CORP.  
NOAH TECHNOLOGIES CORP.  
ONTARIO POWER GENERATION INC.  
PLANSEE SE  
POHANG IRON AND STEEL COMPANY (POSCO)  
POINT SOURCE POWER INC.  
PRECISION FLOW TECHNOLOGIES  
PRESIDIO COMPONENTS INC.  
RAGAN TECHNOLOGIES INC.  
ROLLS-ROYCE FUEL CELL SYSTEMS, LTD. (LG FUEL CELL)  
REDOX POWER SYSTEMS  
RISO DTU NATIONAL LABORATORY  
SAFCELL  
SAINT-GOBAIN  
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SULZER HEXIS AG  
SUMITOMO CORP.  
TERMINUS ENERGY INC.  
TOKYO GAS CO., LTD.  
TOTO LTD.  
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ULTRA ELECTRONICS AMI  
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