

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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BLASCH PRECISION CERAMICS
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BTU INTERNATIONAL INC.
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CALIFORNIA INSTITUTE OF TECHNOLOGY (CALTECH)
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CHAO ZHOU THREE-CIRCLE (GROUP) CO., LTD.
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DOMINOVAS ENERGY CORP.
DOOSAN FUEL CELL
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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.
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MATERIALS & SYSTEMS RESEARCH INC.
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MERLONI TERMOSANITARI SPA (ARISTON THERMO GROUP)
MITSUBISHI HEAVY INDUSTRIES, LTD.
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NOAH TECHNOLOGIES CORP.
ONTARIO POWER GENERATION INC.
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POHANG IRON AND STEEL COMPANY (POSCO)
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ROLLS-ROYCE FUEL CELL SYSTEMS, LTD. (LG FUEL CELL)
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SAFCELL
SAINT-GOBAIN
SANDVIK
SIENERGY SYSTEMS (ALLIED MINDS)
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