

# Global SOFC and SOEC Supply, Demand and Key Producers, 2023-2029

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## Abstracts

The global SOFC and SOEC market size is expected to reach \$ 7589.3 million by 2029, rising at a market growth of 28.3% CAGR during the forecast period (2023-2029).

The global key SOFC and SOEC manufacturers include Bloom Energy, Aisin Seiki, Mitsubishi Heavy Industries, etc. The top 1 company hold a share about 65%. North America is the largest market, with a share about 45%, followed by Asia Pacific and Europe with the share about 40% and 13%. In terms of product, planar is the largest segment, with a share about 85%. And in terms of application, the largest application is stationary, followed by transportation.

The Solid Oxide Fuel Cell (SOFC) is an all-solid chemical power generation device that directly converts the chemical energy stored in the fuel and oxidizer into electrical energy at medium and high temperature in an efficient and environmentally friendly manner. The SOFC is a type of fuel cell, which is characterized by the use of solid oxide materials as the electrolyte. SOFC uses a solid oxide electrolyte to conduct negative oxygen ions from the cathode to the anode.

The Solid Oxide Electrolyzer Cell (SOEC) is a solid oxide fuel cell that operates in the reverse direction. In the electrolysis mode, under the applied voltage and high temperature, it electrolyzes H<sub>2</sub>O to produce H<sub>2</sub> and O<sub>2</sub>, and realizes the conversion of electrical and thermal energy into chemical energy.

This report studies the global SOFC and SOEC production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for SOFC and

SOEC, and provides market size (US\$ million) and Year-over-Year (YoY) Growth, considering 2022 as the base year. This report explores demand trends and competition, as well as details the characteristics of SOFC and SOEC that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global SOFC and SOEC total production and demand, 2018-2029, (MW)

Global SOFC and SOEC total production value, 2018-2029, (USD Million)

Global SOFC and SOEC production by region & country, production, value, CAGR, 2018-2029, (USD Million) & (MW)

Global SOFC and SOEC consumption by region & country, CAGR, 2018-2029 & (MW)

U.S. VS China: SOFC and SOEC domestic production, consumption, key domestic manufacturers and share

Global SOFC and SOEC production by manufacturer, production, price, value and market share 2018-2023, (USD Million) & (MW)

Global SOFC and SOEC production by Type, production, value, CAGR, 2018-2029, (USD Million) & (MW)

Global SOFC and SOEC production by Application production, value, CAGR, 2018-2029, (USD Million) & (MW).

This reports profiles key players in the global SOFC and SOEC market based on the following parameters – company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Bloom Energy, Aisin Seiki, Mitsubishi Power, Ceres, SolydEra, Sunfire GmbH, Convion, Special Power Sources (SPS) and Topsoe, etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices

used in analyzing the World SOFC and SOEC market.

Detailed Segmentation:

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (MW) and average price (USD/KW) by manufacturer, by Type, and by Application. Data is given for the years 2018-2029 by year with 2022 as the base year, 2023 as the estimate year, and 2024-2029 as the forecast year.

Global SOFC and SOEC Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global SOFC and SOEC Market, Segmentation by Type

Planar

Tubular

Others

Global SOFC and SOEC Market, Segmentation by Application

Stationary

Transportation

Portable & Military

#### Companies Profiled:

Bloom Energy

Aisin Seiki

Mitsubishi Power

Ceres

SolydEra

Sunfire GmbH

Convion

Special Power Sources (SPS)

Topsoe

Redox Power Systems

ZTEK Corporation

OxEon Energy

#### Key Questions Answered

1. How big is the global SOFC and SOEC market?
2. What is the demand of the global SOFC and SOEC market?

3. What is the year over year growth of the global SOFC and SOEC market?
4. What is the production and production value of the global SOFC and SOEC market?
5. Who are the key producers in the global SOFC and SOEC market?

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