

# The Global Market for Solid Oxide Fuel Cells 2023-2033

<https://marketpublishers.com/r/G37924DCC384EN.html>

Date: July 2023

Pages: 157

Price: US\$ 1,250.00 (Single User License)

ID: G37924DCC384EN

## Abstracts

Solid oxide fuel cells (SOFCs) are commercially developed due to their high efficiencies in converting chemical energy to electricity as well as their flexibility in utilizing existing fuel infrastructure as well as a range of fuels such as ammonia, methane and biofuels. In recent years there has been increasing deployment of commercial systems ranging from stationary to transport applications.

As part of the global drive for low or zero-emission power generation, Solid Oxide Fuel Cell (SOFC) technology has the potential for broad market penetration. Fuel flexibility makes SOFCs independent from pure hydrogen feeding, since hydrocarbons can be fed directly to the SOFC and then converted to a hydrogen rich stream by the internal thermochemical processes. SOFCs are also able to convert carbon monoxide electrochemically, thus contributing to energy production together with hydrogen, and can be supplied with biofuels, especially biogas and syngas, so that biomass gasifiers/SOFC integrated systems contribute to the “waste to energy” chain with a significant reduction in pollution.

Report contents include:

Technology analysis including comparison to other types, advantages and disadvantages, components and materials, fuels for SOFCs, Solid Oxide Electrolyzer Cells (SOECs), Low-temperature solid oxide fuel cells (LT-SOFCs).

Historical market for SOFCs and ten year forecasts, segmented by, end use market, megawatt demand and revenues.

SWOT analysis of SOFC market.

Market map.

Regional market analysis.

Market trends, challenges and drivers.

Competitive landscape analysis.

Markets for Solid Oxide Fuel Cells including:  
Commercial and industrial.

Vehicles.

Marine.

Residential.

Recent market developments and innovations.

SOFC installations, current and projected.

Analysis of SOFCs role in cutting emissions.

53 company profiles. Company profiles include, products, target markets, stage of commercialization, funding, commercial agreements and collaborations. Companies profiled include Alma Clean Power, Bloom Energy, Bosch, Ceres Power, Cummins, Denso Corporation, FuelCell Energy, Mitsubishi Power, OxEon Energy, Osaka Gas and SolydEra SpA.

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