

DISTRIBUTED GENERATION

GLOBAL MARKET ANALYSIS, TECHNOLOGY ASSESSMENT AND OUTLOOK

Report Code: DGN

Technology Intelligence

WHAT DOES THIS REPORT ANSWER?

- Why will Distributed Generation technologies begin to see strong growth rates?
- What are the underlying business and regulatory issues for DG?
- Which market segments have more potential?
- What are the time lines for DGN markets?
- What are the expected growth rates for DG technologies – from fuel cells to photovoltaics?
- What are the characteristics of near term market segments?
- How will DG markets develop in different regions?

WHO NEEDS THIS REPORT?

Energy Companies

- Utilities
- Energy service companies
- Power distribution companies
- Power generation companies

Equipment Suppliers

- DG manufacturers
- Gas turbine manufacturers
- Reciprocating engine manufacturers
- Fuel cell manufacturers
- Microturbine manufacturers
- Photovoltaics manufacturers
- Wind turbine manufacturers
- DG distributors

Others

- Power-dependent large businesses
- Public utility commissions
- State energy regulators
- Legislators and other policy makers
- Financial firms
- Investment banks
- Venture capitalists
- Technology and financial consultants

MAIN TOPICS OF THE REPORT

Technologies Assessed:

- Gas Turbines
- Reciprocating Engines
- Cogeneration & Combined Cycle Gas Turbines
- Fuel Cells
- Proton Exchange Membrane Fuel Cells
- Solid Oxide Fuel Cells
- Molten Carbonate (MCFC) fuel cells
- Phosphoric Acid (PAFC) fuel cells
- Alkaline (AFC) fuel cells
- Microturbines
- Photovoltaics
- Wind Turbines
- Stirling Engines/Flywheels

End Use Markets:

- Industrial Markets
- Commercial/Residential Markets
- Landfill Markets
- Wastewater Treatment Plant Markets

Technology Market Segments:

- Gas Turbine Markets
- Cogen Markets
- Combined Cycle Markets
- Fuel Cell Markets
- Commercial/Institutional Fuel Cell Markets
- Residential/Small Business Fuel Cell Markets
- Power Quality Fuel Cell Markets
- Wastewater Treatment Fuel Cell Markets
- Landfill Fuel Cell Markets
- Microturbine Markets
- Photovoltaics Markets
- Wind turbine markets

Regional Forecasts:

- United States
- Europe
- Japan
- Asia Pacific
- China
- India
- Australia
- Latin America
- Africa
- Argentina
- Brazil

ABI RELATED REPORTS - (see back page for details)

Stationary Fuel Cells

US and Global Early Market Opportunities

Fuel Cell Industry Competitive Analysis

Defining the Strategies of Fuel Cell Industry Players

Fuel Cell Fuels Infrastructure: Fuel Issues and Market Environments

A Comparative Analysis of Fuel Choices and Market Dynamics

US and Global Photovoltaic Markets

Demand Surge at the Dawn of the Solar Century

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ABI RELATED REPORTS

Stationary Fuel Cells

US and Global Early Market Opportunities

In this study, ABI analyzes the US and global stationary fuel cell markets, taking into account the radically new industry dynamics. The market definitions of stationary fuel cells have vastly expanded, requiring consideration of new potential applications varying from Internet data centers to server warehouses. Analyses ranging from residential to commercial applications have been refined. The new partnership discussions are also updated, as strategic partnerships have become essential to the success of companies in the stationary fuel cell industry. Most of the players in the field still seem to be unaware of business and regulatory issues. These issues are discussed and a special correlation is provided between fuel cell potential and deregulation in California.

Report Code: FCM

Fuel Cell Industry Competitive Analysis

Defining the Strategies of Fuel Cell Industry Players

The fuel cell industry has been growing rapidly, with new faces joining the sector daily. These newcomers have the potential to change the entire infrastructure of the world's energy industry. ABI has meticulously selected companies for this research study - both the leaders and the newcomers with the potential to change the industry dynamics in the coming years. The companies are analyzed, taking into consideration the technology, markets, and their strategies on answering the needs of the fuel cell market opportunities from automotive, stationary and portable applications. The study also assesses the strategic alliances of the companies and their potential impacts for the fuel cell industry. The major market forecasts are also provided, giving insight to the industry as a whole.

Report Code: FCIP

Fuel Cell Fuels Infrastructure:

Fuel Issues and Market Environments

A Comparative Analysis of Fuel Choices and Market Dynamics

ABI's annual FCF report quantifies and analyzes the critical physical, economic and regulatory issues involved in the vast establishment of a fuel cell fuels infrastructure. The quantities and the types of fuels that are, and will be, used are examined in terms of the three major fuel cell market segments: stationary, automotive and portable. The markets are analyzed from the likelihood of fuel choices and their potential in these markets. FCF analyzes the potential roles to be played by biomass (methane), coal, diesel, ethanol, gasoline, hydrogen from electrolysis, hydrogen peroxide, methanol, natural gas and propane. Analyses are presented for both a global perspective and the dominant economic regions of the European Union, Japan and the US. The alternative fuels are put under the microscope for different criteria ranging from the security of supply to distribution network infrastructure costs.

Report Code: FCF

US and Global Photovoltaic Markets

Demand Surge at the Dawn of the Solar Century

The global market for photovoltaics (PV) has solidly surpassed the \$1 billion per year level. The report examines evolving trends in market growth that are shifting the market for PVs from off-grid applications toward grid-connected applications, particularly for residences. Forecasts are provided for markets of PV on-grid residential power systems, village power, micropower, highway variable message signs, arrow boards and traffic signals, cathodic protection systems, commercial buildings, solar pumps, telecommunication relays, cellular phone base stations, navigation beacons and others. Attention is also given to the impacts of government and utility subsidies, net metering legislation, green power programs and microloan programs. The report considers markets for hybrid PV, wind, internal combustion and fuel cell systems, and assesses the time to market viability of integrated, fully renewable energy systems. Forecasts are provided for the capacity uptake of various PV applications in the European Union, Japan, the US, Latin America, Africa and others, on both regional and national bases.

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