

Biofuels Markets and Technologies: Ethanol and Biodiesel Demand Drivers, Policy Issues, Emerging Technologies, Key Players, and Forecasts

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Abstract:

Driven by a quest for energy security, environmental quality, and economic development, a handful of nations are following the lead of Brazil in developing domestic biofuels markets. National governments are mandating the tremendous scope of the biofuels market opportunity — at \$100 billion-plus per year — but it is still in its infancy. The United States, Brazil, and the European Union are the big three biofuels markets in terms of volume. Biofuels now provide more than 50% of the fuel by volume that powers Brazil's road transportation vehicles with gasoline engines. While currently only a small fraction of the U.S. and EU total transportation fuels markets, these regions dominate Brazil in absolute numbers in their respective biodiesel and ethanol markets.

However, the excitement of the biofuels market potential is tempered somewhat by its many challenges, which include limited availability of inexpensive feedstocks, ethical questions of food vs. fuel, price volatility and low price of petroleum oil, sustainability issues of water, secondary land use effects, and biodiversity, infrastructure incompatibilities, credit availability and global recession, and overcapacity of production.

This Pike Research report explores many of the complexities and paradoxes of biofuels markets. It examines current trends and possible futures for the industry, policies and market conditions that have shaped the industry to this point, and game changing events, mechanisms, players, and technologies. The report covers key technologies that will drive the future of the industry to include second and third generation feedstocks and advanced technologies. Companies that are playing significant roles in the evolution of global biofuels markets are also profiled. Comprehensive forecasts quantify the market potential for biodiesel and ethanol by country and region.

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