U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Benefits of Biofuel Production and Use in Mississippi

Mississippi

Mississippi can leverage its biomass resources to produce renewable fuels and products. The Bioenergy Technologies Office enables the development of novel technologies that can be used to establish Mississippi as a leader in the growing bioeconomy.

Abundant biomass resources and existing infrastructure present Mississippi the opportunity to benefit from both traditional and renewable energy sources. Developing advanced biofuels can boost economic development, improve energy security, and reduce harmful emissions for Mississippi.

Economy

Mississippi's transportation sector spent **$9.2 billion** on petroleum-based fuels in 2013. Investing in **local biomass resources** for drop-in biofuel production can establish Mississippi as a leader in sustainable fuels—creating jobs and stimulating **economic development**.

Energy

In 2012, Mississippi consumed more than **2.5 times more** petroleum than it produced. **Bio-based** fuels and products can help to supply Mississippi's refining industry with high-performance fuel additives. **Drop-in biofuels** help narrow the disparity between energy consumption and production.

Environment

In 2011, petroleum use in Mississippi's transportation sector released 22 **million metric tonnes** of CO_2. On a life-cycle basis, advanced biofuels can **reduce greenhouse gas emissions by ≥50%** compared to petroleum—helping to reduce environmental impacts.

Feedstocks

Estimates indicate more than **5 million tonnes** of **woody biomass residues** and **1 million metric tonnes** of **crop residues** are available in Mississippi each year. Energy crops, poultry litter, manure, algae, and municipal solid waste can all contribute to the **production of biofuels**.

Strategic policies and investments help *bridge the gap* between promising research and large-scale production of advanced biofuels.

The Mississippi Biomass and Renewable Energy Council serves as a forum for building public-private partnerships—increasing collaborations to grow the bioeconomy.

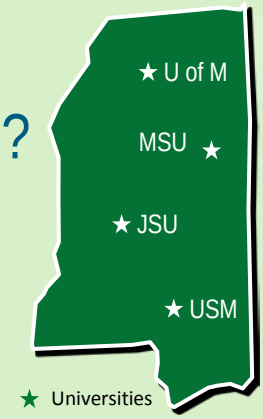
The Biofuels Production Incentive provided by the Mississippi Department of Agriculture and Commerce recognizes the long-term economic and environmental benefits of investing in biofuels.

The U.S. Department of Energy (DOE) has invested **more than $18 million** toward demonstration of integrated biorefineries through the "Recovery Act" funds (i.e., for Bluefire and Enerkem).

Mississippi universities perform cutting-edge research that helps to establish the state as a leader in the bioeconomy.

- **Jackson State University (JSU)** — Developing bioethanol from non-food resources like corn stalks and woody biomass.
- **Mississippi State University (MSU)** — Investigating bio-derived fuels through the DOE-supported Sustainable Energy Research Center.
- **University of Southern Mississippi (USM)** — Developing bio-based photovoltaic materials.
- **University of Mississippi (U of M)** — Researching responses to the effects of climate change through the Sustainable Energy and Environmental Group.

Why Mississippi?



Abundant biomass resources provide a locally sourced supply chain for biofuels production (NREL* estimates 6.4 million metric tonnes annually).

Existing infrastructure and location to support biofuels production and distribution.

Biofuels can be used to increase the quality of products made at existing Mississippi petroleum refineries.

Skilled workforce and strong training programs support state incentives to grow the bioeconomy in Mississippi.

For more information on Mississippi's energy portfolio and the economic benefits of biofuels, visit:
eia.gov/state/analysis.cfm?sid=MS
mississippi.org/assets/docs/maps13/mda-biomass.pdf
energy.gov/eere/bioenergy/about-bioenergy-technologies-office-growing-americas-energy-future-replacing-whole
For more information on biomass resources and the environmental benefits of biofuels, visit:
epa.gov/otaq/fuels/renewablefuels/documents/420f12078.pdf
eia.gov/environment/emissions/state/state_emissions.cfm
eere.energy.gov/bioenergy/pdfs/billion_ton_update.pdf, maps.nrel.gov/biofuels-atlas

For more information on Mississippi clean energy initiatives and DOE partnerships, visit:
afdc.energy.gov/
mississippi.org/energy/clean-energy/biomass/
ms-biomass.org/
serc.msstate.edu/index.html
energy.gov/eere/bioenergy/financial-opportunities

* National Renewable Energy Laboratory

For more information, visit bioenergy.energy.gov

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