



*Renewable Energy in Mississippi*  
*A Report on Current Projects and Future Possibilities*

**Joseph A. Linton**

Southern BioProducts and  
Renewable Energy Conference  
May 10-11, 2011



**Strategic Biomass Solutions™**  
[www.technologyalliance.ms](http://www.technologyalliance.ms)



Strategic Biomass Solutions™

**MTA Mission:**

...To Drive Innovation  
and Technology based Economic  
Development.



*HPiIES*

**MTA Mantra: "Drive Innovation to  
Markets"**

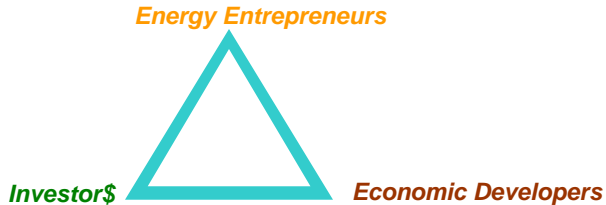
**High Performance Innovation Intensive Enterprises**

MTA is a private, non-profit Economic Development Organization

Strategic Biomass Solutions™

## Strategic Biomass Solutions™

- Help commercialize renewable energy technologies by making them investor ready.



- SBS is funded in part by the U.S. Department of Energy.

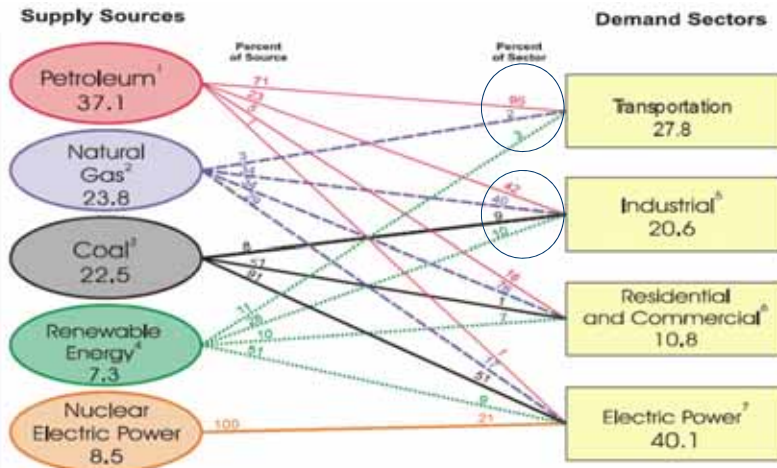
Strategic Biomass Solutions™

## Strategic Biomass Solutions (SBS) Portfolio

- 40+ entrepreneurial ventures (> \$500,000,000)
- 21 projects (> \$3,000,000)
- 6 Universities
  - (MSU, USM, UM, JSU, U Arkansas, U Michigan)
- 9 States (MS, AR, TN, KY, MO, IL, MI, NC, GA)

www.eia.gov

## U.S. Primary Energy Consumption by Source and Sector, 2008 (Quadrillion Btu)



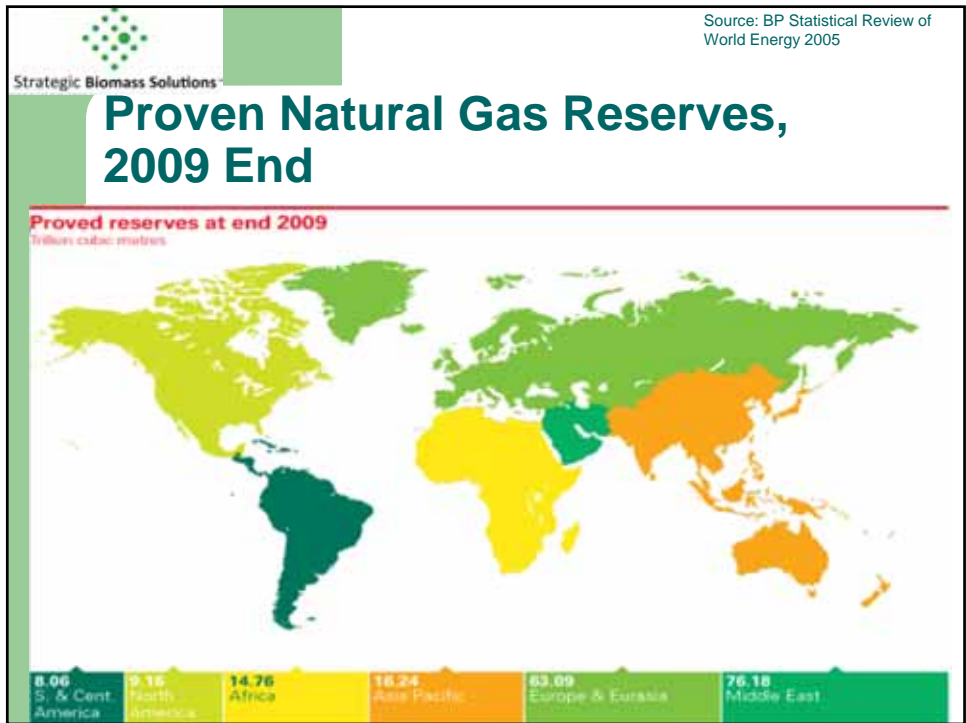
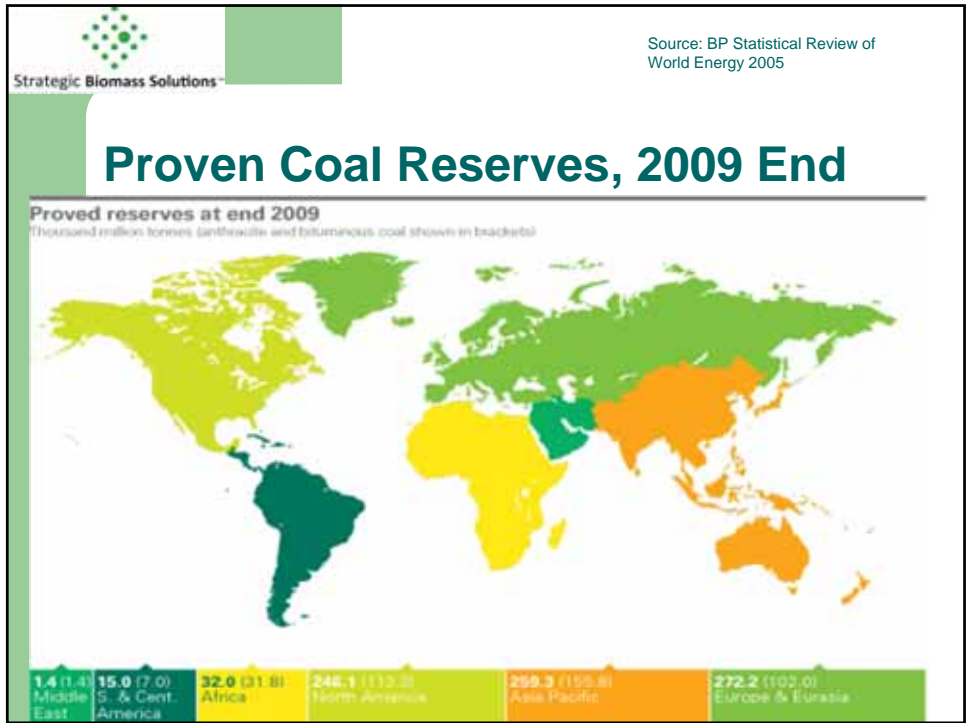
Strategic Biomass Solutions

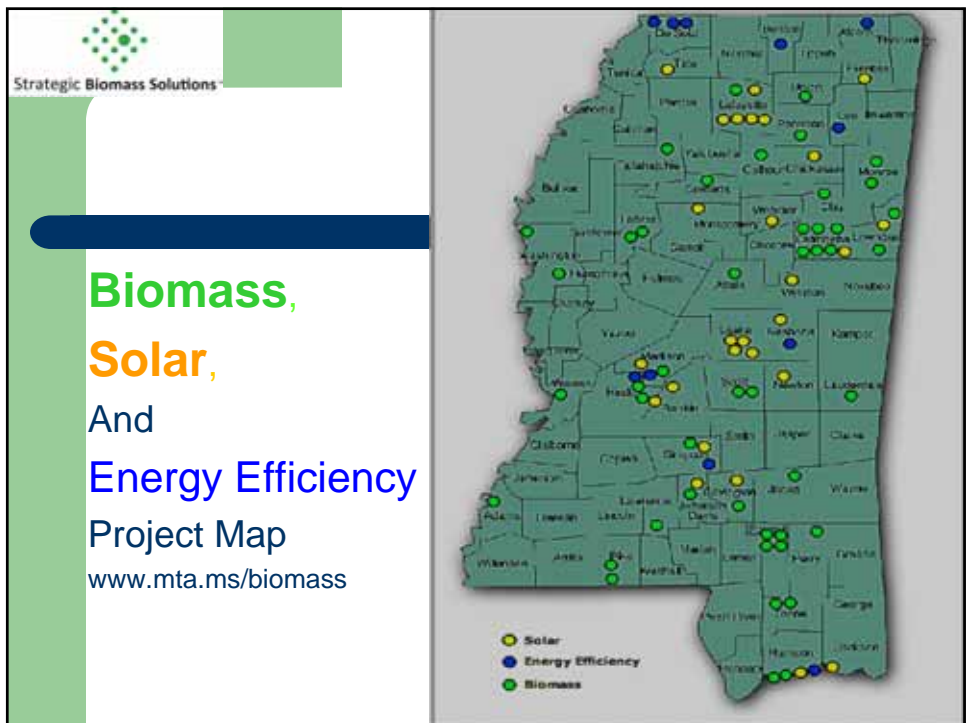
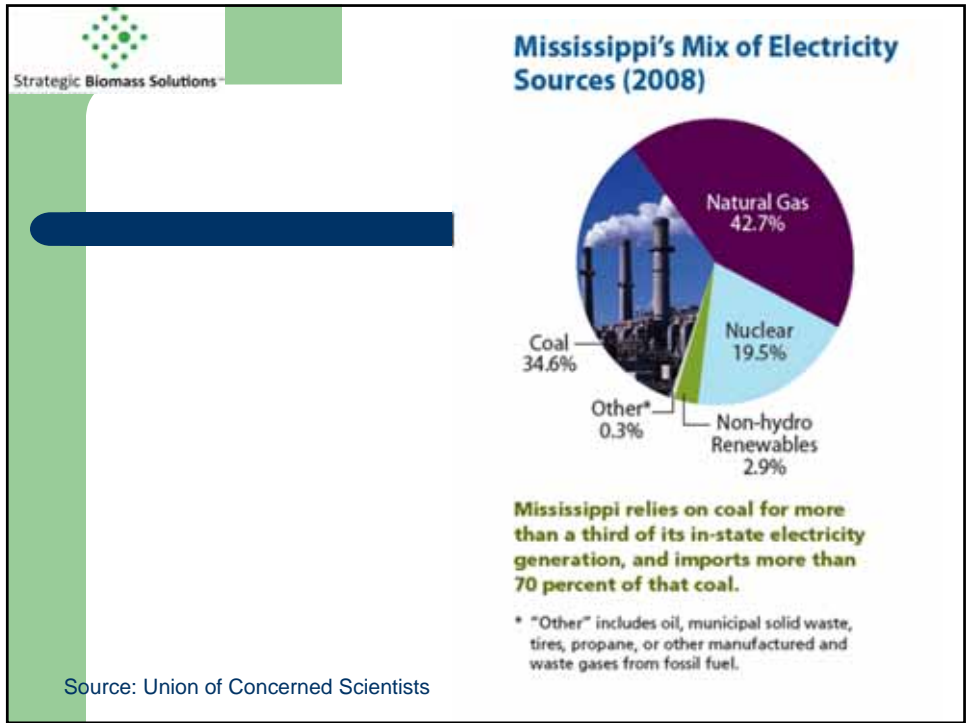
Source: BP Statistical Review of World Energy 2010

## Proven Oil Reserves, 2009 End

Proved reserves at end 2009  
(Thousand million barrels)








Strategic Biomass Solutions

## Current Information

- Over 100 different projects
- Split into three subgroups
  - Biomass based energy
  - Solar energy
  - Energy efficiency
- Projects are a mix of funding types
- New opportunities forthcoming

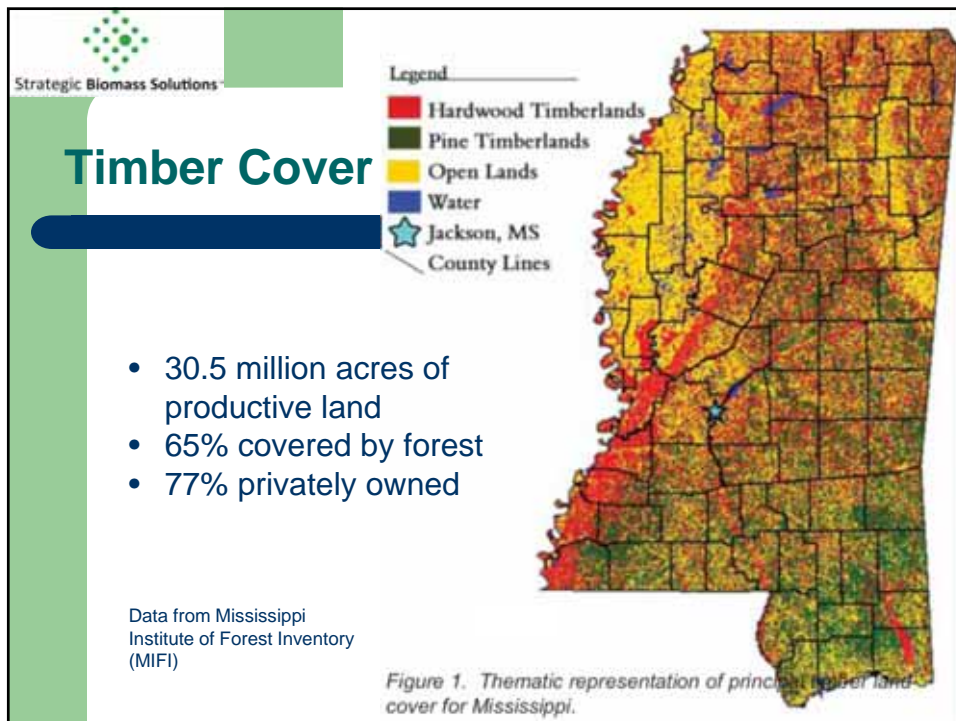
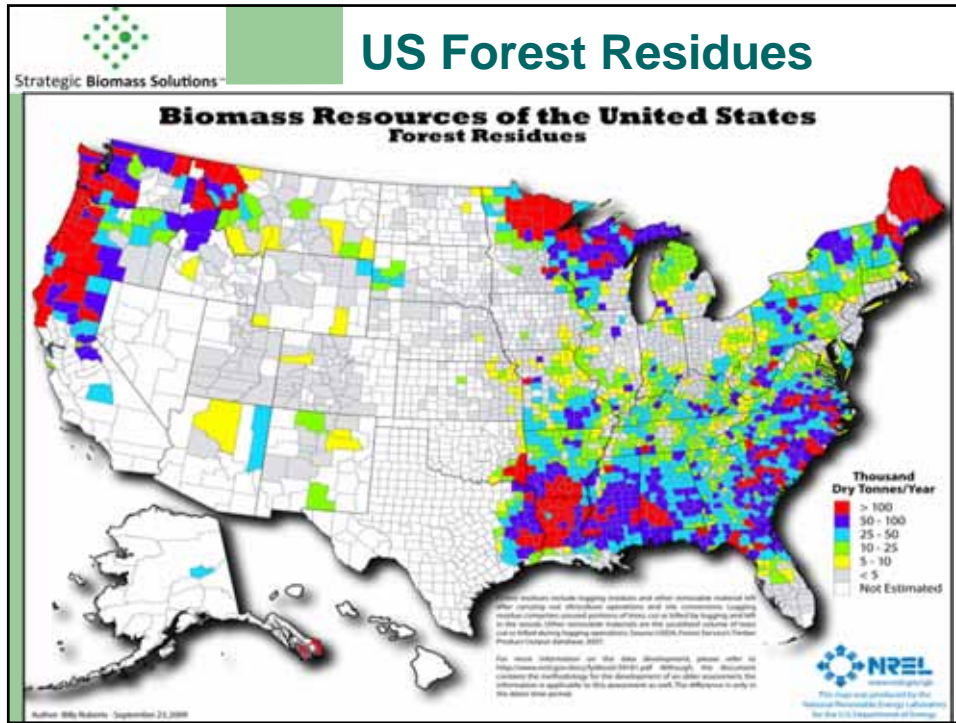
Strategic Biomass Solutions

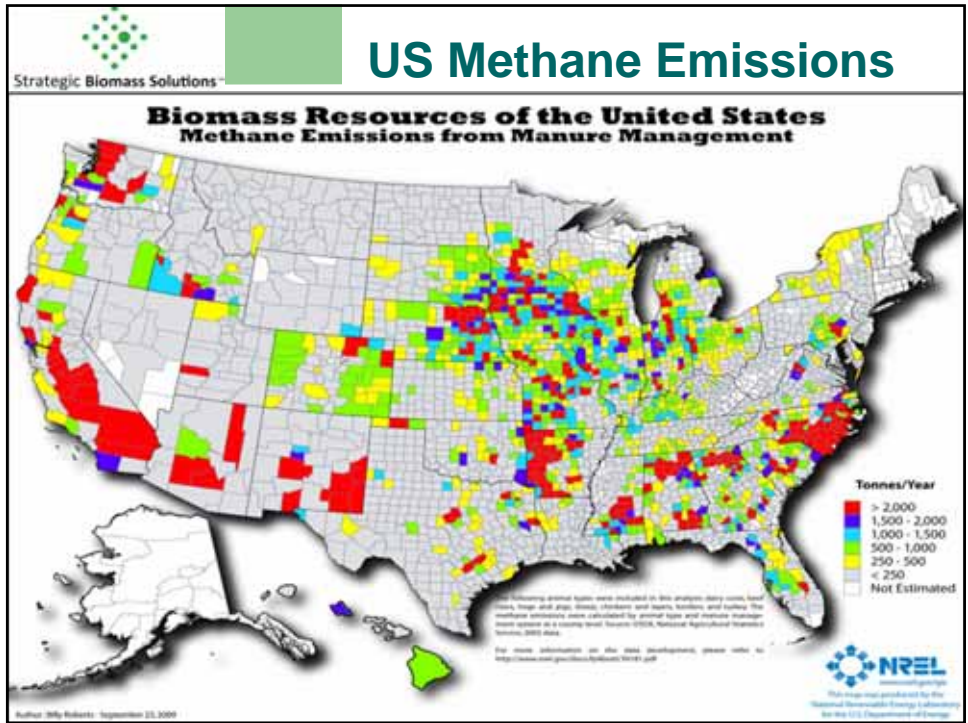
## Biomass Based Energy



- Range of project types
  - Anaerobic digesters
  - Pelletization
  - Transportation fuel
- Makes use of abundant resources in state


Source: [www.solarpowernotes.com](http://www.solarpowernotes.com)



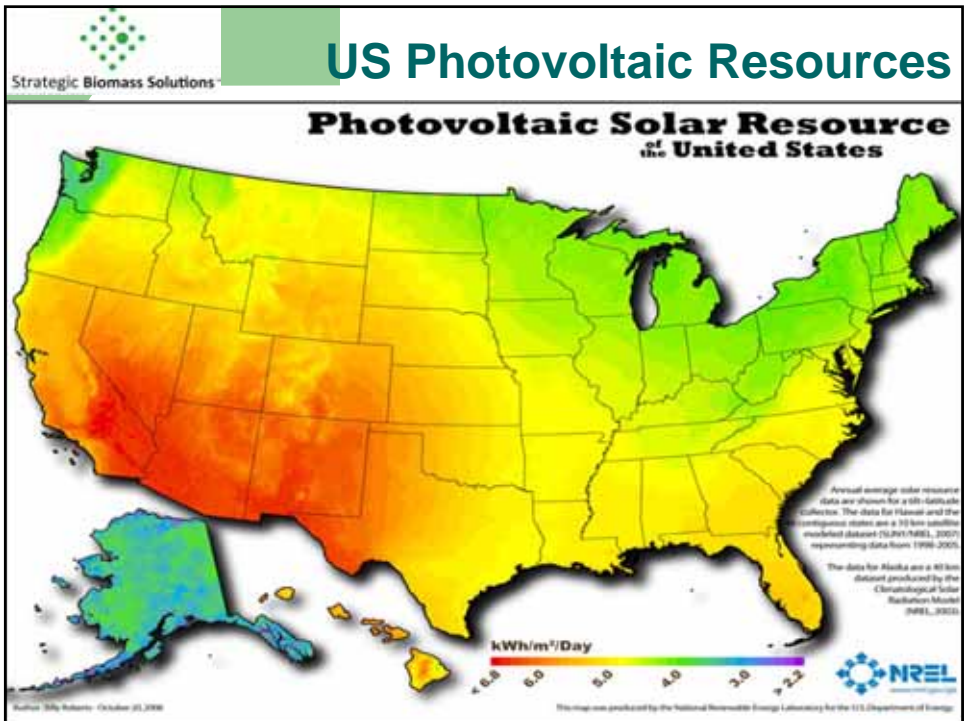


Strategic Biomass Solutions

## Solar Energy



- Widespread throughout Mississippi
- Variety of applications
  - Residential
  - Agricultural
  - Academic
- New solar related industry forthcoming



Strategic Biomass Solutions

## Solar Power in Mississippi




Source: Mississippi Business Journal

The slide features a green and white header with the logo 'Strategic Biomass Solutions'. Below the header is a dark blue horizontal bar. The main content area contains two side-by-side photographs. The left photograph shows a large, long industrial building with a roof covered in solar panels. A white truck is parked in front of the building. The right photograph shows a solar-powered truck with 'DELL' and 'SOLARTECH' branding on its side, parked on a paved surface. Below the photographs is the text 'Source: Mississippi Business Journal'.

Strategic Biomass Solutions

## Energy Efficiency



- “Low hanging fruit” of energy security
- Most projects involve energy efficient certified buildings
- Can apply to residences, commercial buildings, public buildings.

Source: [www.aicup.org](http://www.aicup.org)

The slide features a green and white header with the logo 'Strategic Biomass Solutions'. Below the header is a dark blue horizontal bar. The main content area contains a close-up photograph of several electrical outlets on the left. To the right of the photograph is a bulleted list of three points. Below the list is the text 'Source: www.aicup.org'.

Strategic Biomass Solutions

## Energy Efficiency in Mississippi



Strategic Biomass Solutions

## Economics of Energy Efficiency


- Reducing the state's electricity use by just **ONE percent** (1%) annually could save consumers:  
**\$18 Million in the first year alone**
- Avoid as much as \$13 Million of coal imports (value of imported coal burnt in 2008 was \$457 million)

Source: Union of Concerned Scientists factsheet

Strategic Biomass Solutions

## Research Highlights

- New Biofuels
  - Bio-oil
  - Renewable Crude
- Feedstock Research
  - Cellulosic Material
  - Oil based Feedstocks
- Feasibility Research
- Non-energy Uses



Strategic Biomass Solutions

## Investment and Jobs Scenario

- Current Scenario:
  - ~\$150 million investment as of May, 2011
  - Over 1,000 direct and indirect jobs
- Plans for the Future
  - New investments around **\$1Billion** over next 5 years
  - Up to 2,000 more direct and indirect jobs




Strategic Biomass Solutions

## SBS Services

- Business Plan Review
- Project Evaluation/Feasibility Studies
- Access to capital (Seed, Angel, Grants)
- Supply chain logistics analysis
- Energy efficiency
- **Renewable Energy Venture Development Academy**

*Connecting entrepreneurs, investors, and economic developers*



Strategic Biomass Solutions

## REVDA

# RENEWABLE ENERGY VENTURE DEVELOPMENT ACADEMY

Strategic Biomass Solutions

*Investing in renewable energy is like investing for your retirement....*  
You must **diversify** and you **can't wait** till you are about to retire!  
© Arora



**Sumesh Arora, PhD**  
Director of Strategic Biomass Solutions  
Mississippi Technology Alliance  
Ridgeland, MS  
601-960-3659; [sarora@mta.ms](mailto:sarora@mta.ms)

**Joseph A. Linton**  
Business Analyst, Strategic Biomass Solutions  
Mississippi Technology Alliance  
Ridgeland, MS  
601-960-3623; [jlinton@mta.ms](mailto:jlinton@mta.ms)

[www.mta.ms/biomass](http://www.mta.ms/biomass)

SBI is funded in part by the US-DOE under grant #DE-FG36-05G085002