

Biopower for the Southeast

BIOPOWER SOLUTIONS: Ensuring Sustainable Energy

What is biopower?

Biopower is the use of readily available plant and animal matter, often referred to as “biomass,” to produce heat or electricity. Locally grown energy supplies include sugarcane residue, switchgrass, peanut hulls, forest residue, bark, urban wood waste, swine waste, and landscape waste.



Key concerns about biopower are its impact on forest ecology, food production, and land use.

Biopower is part of state renewable energy standards and proposed federal standards.

- ✓ A renewable energy standard is a market-based mechanism that requires utilities to gradually increase the portion of electricity produced from renewable resources.
- ✓ As of 2007, 24 states and the District of Columbia have enacted minimum renewable energy requirements.
- ✓ Biopower represents almost 50% of current southeastern renewable energy.
- ✓ In the near term, biopower could grow to represent nearly three-quarters of southeastern renewable energy.

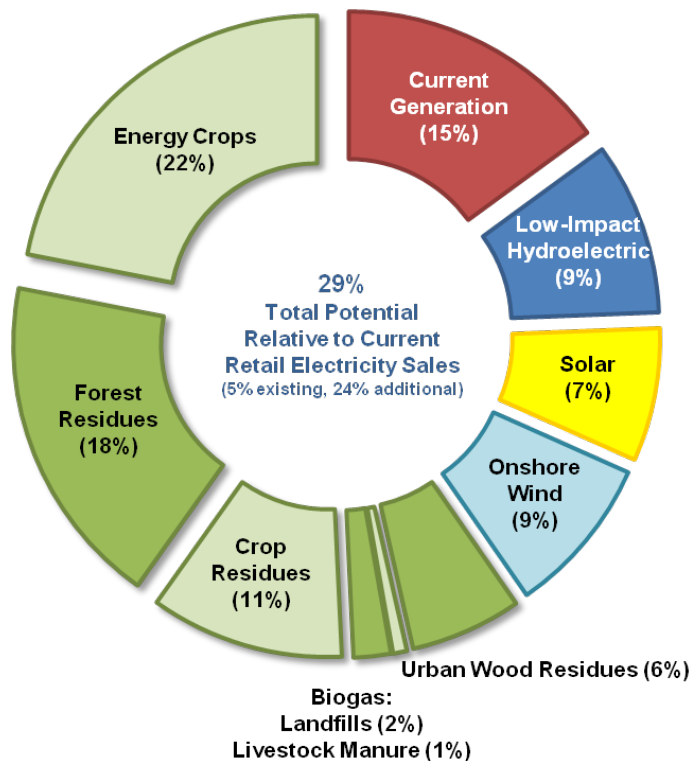
A federal renewable energy standard, if enacted, would require that up to 25% of our nation's electricity would come from renewable resources and energy efficiency by 2025.

Biopower can help reduce global warming pollution

- If linked to global warming policy, resources that supply biopower will need to be managed to maximize carbon storage – this means a healthier ecosystem.
- Fossil fuel combustion releases carbon dioxide that cannot be easily recaptured and returned underground.
- Biopower also releases carbon dioxide, but when the resource is re-grown, the loop is closed and the carbon is recaptured.

A renewable energy standard is an important economic development tool to create jobs and income for Southeastern farmers, scientists and entrepreneurs.

Near Term Potential Renewable Energy Resources



The Southeast can meet a renewable energy standard of 20% by 2020 and 25% by 2025. In the near term, the Southeast can easily meet a 15% target using today's technology and resources.

Is biopower a sustainable energy resource?

- ✓ Yes, if appropriate practices are enacted. State and federal policies are currently inadequate to ensure that resources are used in a sustainable manner and that sensitive ecosystems are protected. However, options such as harvesting practice guidelines, resource management plans and other programs can be implemented to ensure sustainability.
- ✓ Biopower is compatible with healthy forest management. Our analysis indicates that residues from existing forest operations (not new harvests) are sufficient to supply renewable energy. In fact, existing power plants rarely find it economical to harvest high-value timber for energy. At the levels indicated in our analysis, annual demand for forest residue would consume only about 0.2% of forest stock.
- ✓ Biopower is compatible with food production: The crop residues identified in our analysis represent less than 1% of total crop production.
- ✓ Biopower is compatible with other land uses: The energy crops needed for our future can be grown on less than 4% of current farmland.

What can you do to help?

- **Ask your U.S. Senators and Representative to support a renewable energy portfolio standard in Congress and create a clean energy economy today.**
- **Join the Southern Alliance for Clean Energy so we may keep you updated on key energy votes and developments on clean energy issues.**