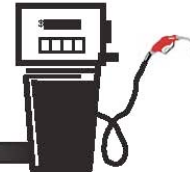




## Southern Forests



### *Fueling the Future*

President George W. Bush, in his January 31, 2006 State of the Union Address, outlined the Advanced Energy Initiative to help break America's dependence on foreign sources of energy. Through this initiative the President set a national goal of replacing more than seventy-five percent of the nation's oil imports by 2025.

One of the components of the President's Energy Initiative is changing the way the nation powers its cars and trucks. Here, the President wants to accelerate the development of domestic, renewable alternatives to gasoline and diesel fuels by refining forests and agricultural waste into "cellulosic ethanol." To achieve greater use of these "homegrown" renewable fuels the President is asking for \$150 million to further the technology of producing bio-based transportation fuels from forest and agricultural waste including wood chips.

For America's forests and forest owners, this is good news! Expanding energy production from forest residues is supportive of the South's priorities to achieve social, environmental and economic sustainability. Moreover, an expanded forest based energy industry is consistent with the goals of the National Fire Plan and the Healthy Forest Restoration Act. Both of these initiatives express the intent of returning the nation's forests to a healthier, more resilient state by reducing hazardous fuel loads while simultaneously enhancing rural economies.

The development of a forest based energy infrastructure in the Southern United States has the capacity of producing the equivalent of approximately 52 million barrels of oil annually from conventionally harvested wood residues. Beyond that, the forests of the South have the potential to accommodate a 20 percent increase in wood removal and still maintain sustainable production. This means that with expanded management and carefully planned harvesting levels the South could produce the equivalent of approximately 75 million barrels of oil annually from forest biomass not otherwise utilized for wood products. Associated benefits of enhanced efficiency in forest management and production include improved wildlife and fisheries habitat; reduced risk of devastating wildfires; reduced risk of insect and disease outbreaks; increased resiliency to natural disasters; and improved forested watershed functions.

Forest biomass energy delivers unique and valuable social and environmental benefits that most renewable resources cannot match. For example, producing and using forest based fuels will displace the use of fossil fuels; minimize the amount of material entering landfills; contribute to air and water quality improvements including the lowering of greenhouse gas emissions; and provide jobs in the construction and operation of bio-energy facilities and in the growing harvesting and utilization of forest resources.

In addition to transportation fuels, woody biomass could also be used to generate electrical energy for America's homes. The average American home uses approximately 930 kilowatt hours (kWh) per month ([www.eia.doe.gov](http://www.eia.doe.gov)). Each green ton of logging residues can produce approximately one-half megawatt hour (MWh) of electricity, thus at 60% recovery of logging residues the South has the potential of generating approximately 26 million MWh of electrical energy. This level of production would supply the electrical energy needs of approximately 2.3 million homes.

Per the President, "... America must act now to reduce dependence on foreign sources of energy. The sooner breakthroughs are achieved, the better for America."

### Wood Residue Use for Energy

State	Logging Residues <sup>1</sup>	Potentially Recoverable Logging Residues	Barrels of Oil from Recoverable Logging Residues	Electrical Energy Capacity from Recoverable Logging Residues
	Green Tons	Green Tons	Barrels (MM)	# of Homes Served
Alabama	9,340,806	5,604,484	5.6	251,097
Arkansas	6,889,639	4,133,783	4.1	185,205
Florida	4,426,223	2,655,734	2.7	118,984
Georgia	12,265,125	7,359,075	7.4	329,708
Kentucky	4,006,803	2,404,082	2.4	107,710
Louisiana	10,295,023	6,177,014	6.2	276,748
Mississippi	12,185,352	7,311,211	7.3	327,563
N. Carolina	7,888,523	4,733,114	4.7	212,057
Oklahoma	1,344,213	806,528	.8	36,135
S. Carolina	5,642,385	3,385,431	3.4	151,677
Tennessee	2,526,834	1,516,101	1.5	67,926
Texas	4,802,566	2,881,539	2.9	129,901
Virginia	5,782,688	3,469,613	3.4	155,449
<b>Total</b>	<b>87,396,179</b>	<b>52,437,708</b>	<b>52.4</b>	<b>2,349,360</b>

<sup>1</sup> Logging residue left in the woods. Approximately 60% is salvageable and potentially available for biofuel or electrical energy uses. Source: USDA Forest Service, FIA, TPO data.

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