

Biomass Energy in West Virginia

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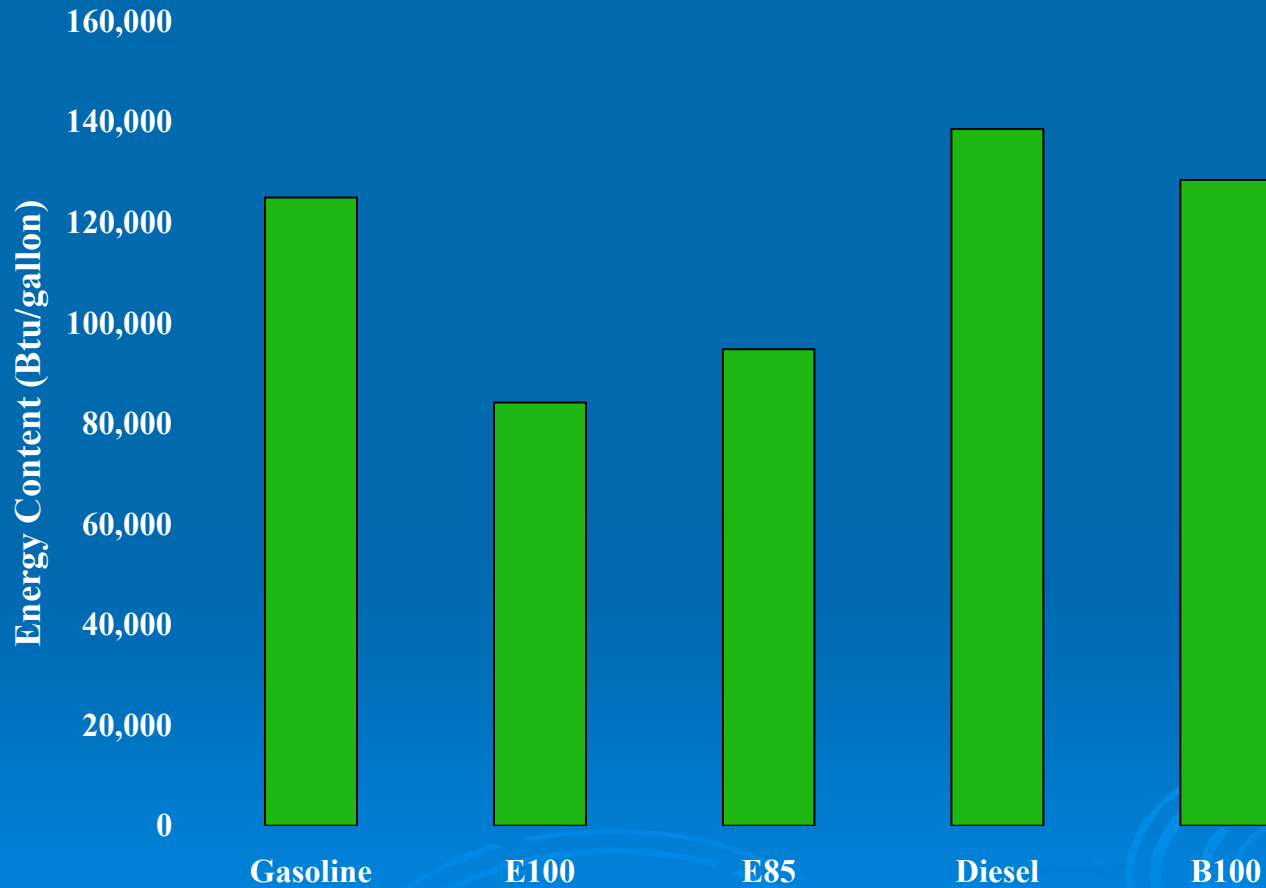
Biodiesel in West Virginia

- Fifteen school systems using biodiesel blend in school buses. In 2006, 400,000 gallons of B100 was consumed by 1,100 buses.
- Inwood Farmers Market operated by WV Department of Agriculture retails biodiesel.
- Mid-Ohio Valley Transit Authority using B5.
- Two biodiesel manufacturers (AC&S in Nitro & Emerald Biofuels in Institute) expect to be in production by the end of 2007.
- West Virginia Biofuels/Green Fuel Crop Collaborative.

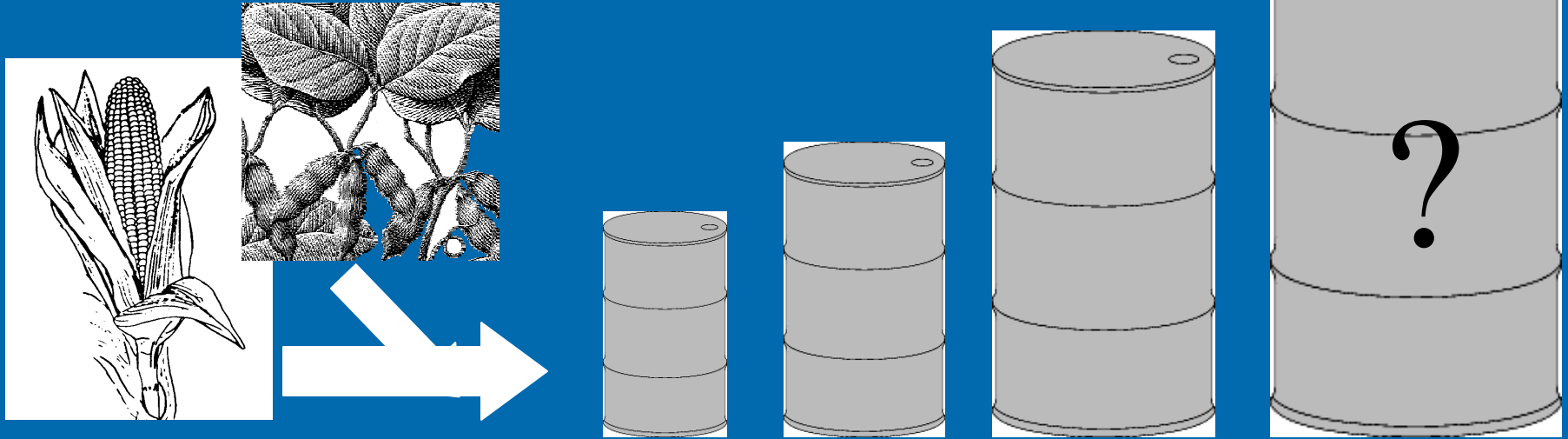
EEP's Biomass Activities

- Promoting biofuel utilization to industry and government as a displacement for conventional fuels.
- Establishment of a BioBased Materials Center at WVU.
- Biofilter Demonstration Project at WVU Wardensville Farm.
- Engaged MATRIC to conduct biofuel opportunity studies.
- Planning for a cellulosic ethanol roadmap session.

Energy Content and Fuel Volume



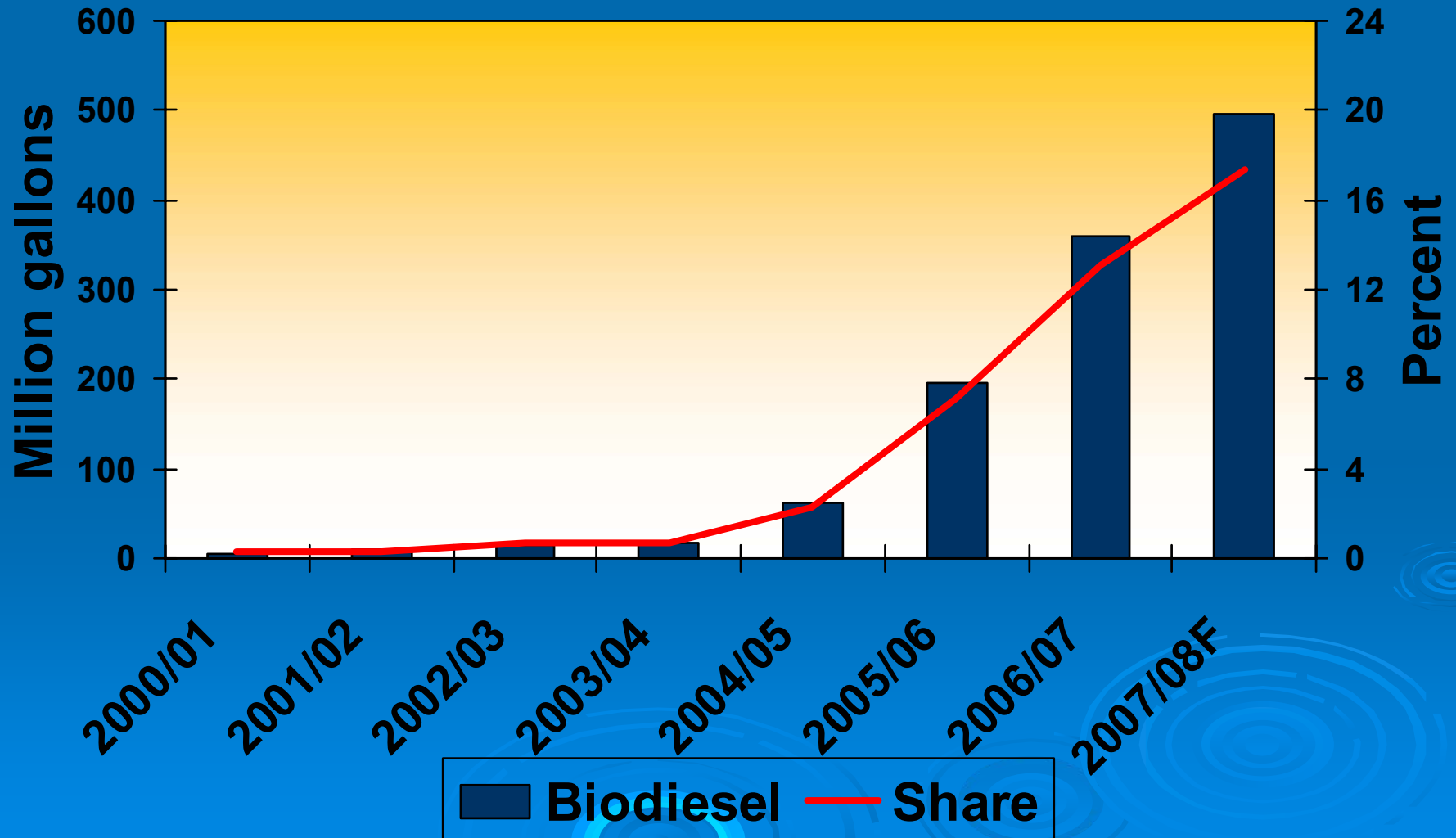
A Booming Biofuel Industry



Year	Gasoline (billion gal)	Ethanol (billion gal)	% of Gasoline Pool
2000	128.7	1.63	1.27%
2001	129.3	1.77	1.37%
2002	132.8	2.13	1.60%
2003	134.1	2.80	2.09%
2004	137.0	3.40	2.48%
2005	136.9	3.90	2.85%

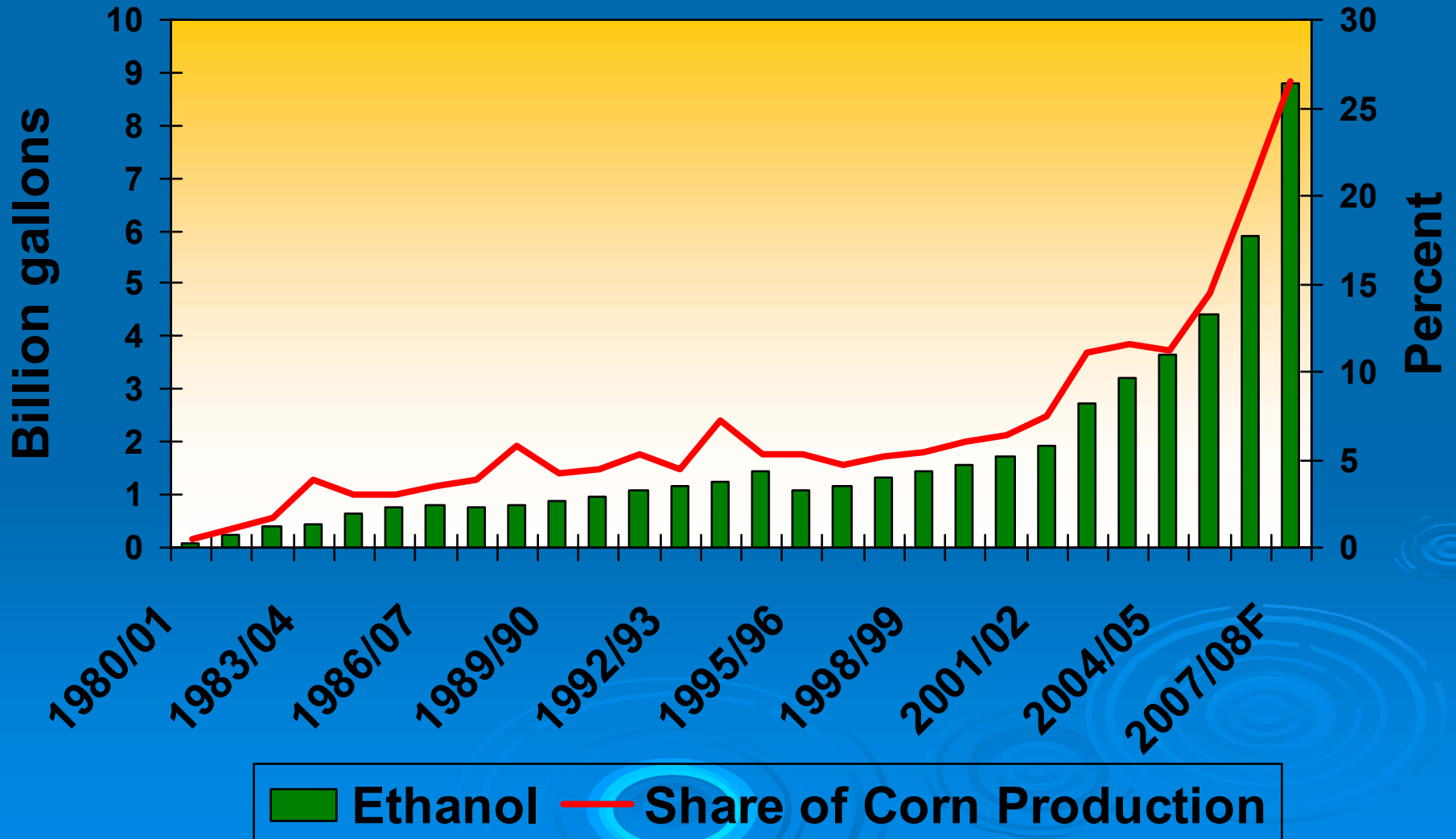
Biodiesel Production . . .

expect to use 17% of '07 soyoil crop for 500 mil. gal.

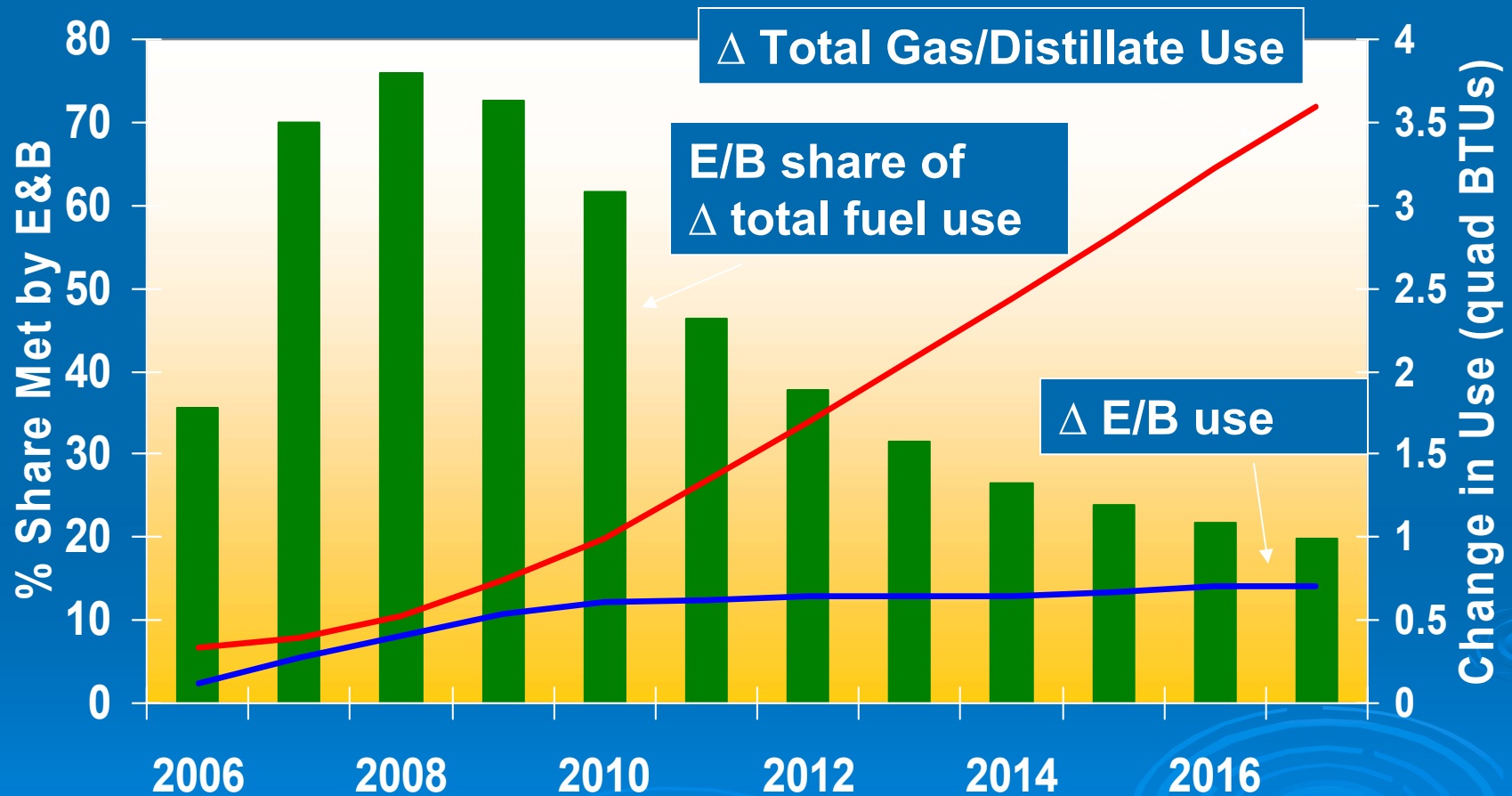


Corn Ethanol Production . . .

expect to use 27% of '07 corn crop for nearly 9 bil. gal.



Change in Fuel Use Since 2005 Met by Ethanol/Biodiesel

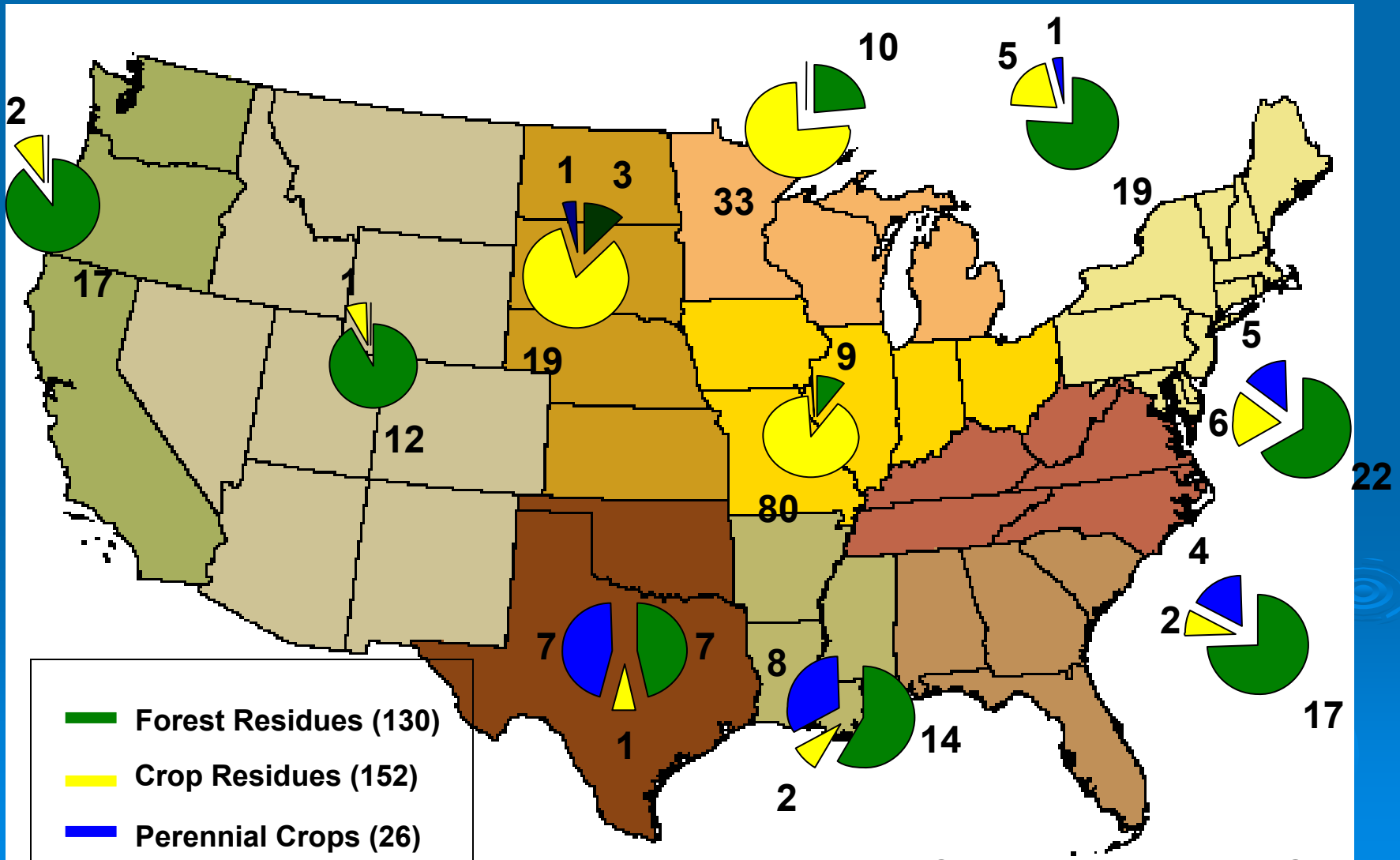


Source: 2007 EIA Annual Energy Outlook

Biomass Potential by 2017

(excluding corn based ethanol)

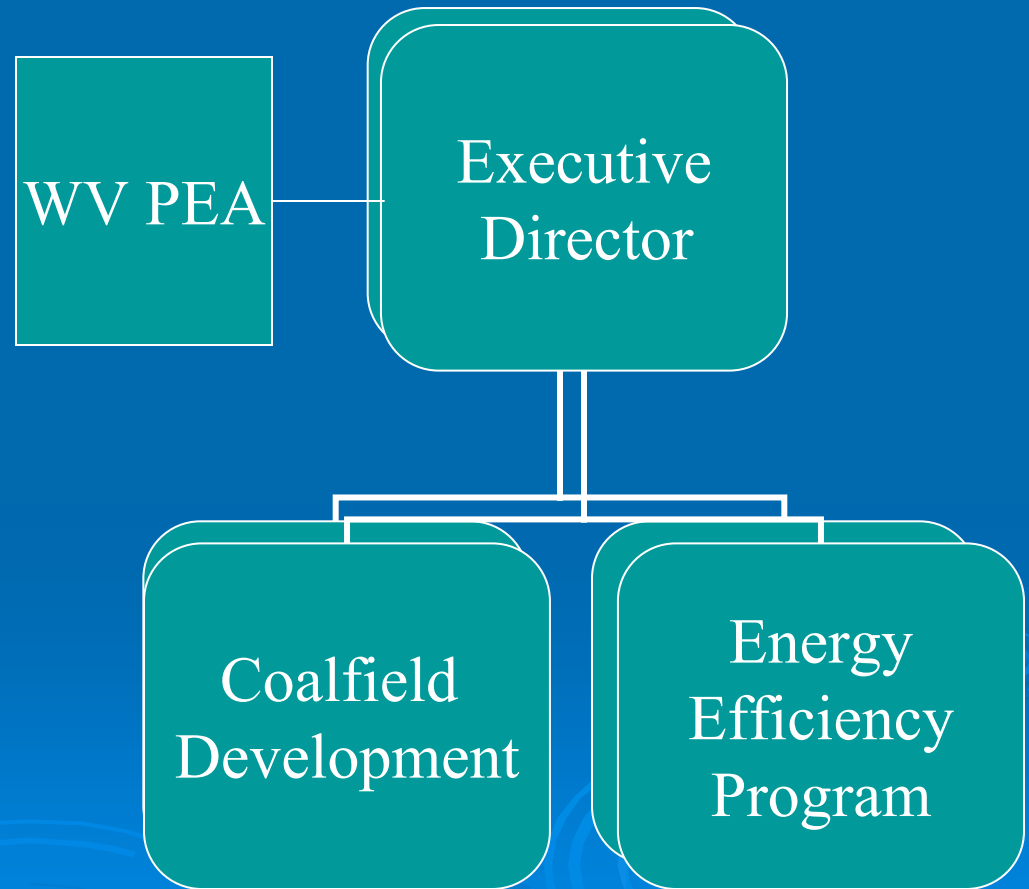
(310 million tons of biomass = 28 billion gallons of ethanol)



Source: "Billion-Ton" Study

Future Activities: The Division of Energy

- Enacted in the 2007 Legislative Session
- The West Virginia Public Energy Authority, the Coalfield Community Development Office and the Energy Efficiency Program of the West Virginia Development Office are merged.



Goals of the Division of Energy

“Provide leadership for ...

- Developing energy policies emphasizing the increased efficiency of energy use.
- Increased development and production of new and existing domestic energy sources
- The increased awareness of energy use on the environment and the economy.

Policy Activities of the Division of Energy

- Develop a five-year energy policy and report to the Governor and Joint Committee on Government and Finance by December 1, 2007. The plan shall provide a direction for the private sector.
- Prepare and submit an annual energy development plan to the Governor and Joint Committee on Government and Finance by December 1, 2007.

New Activities of the Division of Energy

- Prepare an energy use database, including:
 - End-use applications and infrastructure needs for different classes of energy users (residential, commercial, industrial).
 - Data regarding interdependencies and sources of electricity, oil, coal, water and gas infrastructure.
 - Energy use of schools and state-owned facilities.

New Activities of the Division of Energy (cont.)

- Promote initiatives to enhance the nation's energy security through research and development directed at transforming the state's energy resources to the resources that fuel the nation.
- Promote collaboration between the state's universities and colleges, private industry and nonprofit organizations to encourage energy research and leverage federal energy resources.

The Plan Will Call For...

- Development and implementation of renewable, clean, technically innovative and advanced projects.
 - Projects may include:
 - Solar and Wind Energy
 - Low-impact Hydropower and Geothermal
 - Biomass and Landfill Gas
 - Fuel cells and renewable hydrogen fuel technologies
 - Waste coal, coal mine methane, and coal liquefaction technology
 - Solid waste to fuel grade ethanol
 - Coal gasification to ultraclean fuels
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