

# **GETTING A LIFT FROM BIOFUELS: COMMUNITY ECONOMIC POLICY FOR ENERGY DEVELOPMENT**

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# RURAL COMMUNITIES ARE BEING ASKED TO INVEST IN BIOFUELS

- Because it appears that domestic ethanol production is poised to double over the next decade, questions about ethanol plant location, community support, and community economic effect will be asked.
- As the primary corn production areas become saturated with ethanol plants, it will become increasingly important for decision makers and policy makers to understand **the cost-benefit of championing additional ethanol capacity in the local area.**
- To date, federal and state subsidies and incentives have been significant. Federal and **state taxpayer dollars play a much more significant role in subsidizing ethanol production than do local governments.**
- Thus, as long as the subsidies continue, rural communities will be asked to **"invest" in their future through financial support and social acceptance of local ethanol production.**
- **What are Communities getting in return for these investments?**
- Journal of Agricultural and Applied Economics, Aug 2006 by Parcell, Joe L, Westhoff, Patrick

# REGIONAL ENERGY OPPORTUNITIES ARE SIGNIFICANT

- IMPORT SUBSTITUTION
  - ENERGY
  - TECHNOLOGY
  - HUMAN CAPITAL
  
- EXPORT PROMOTION
  - ENERGY
  - TECHNOLOGY
  - HUMAN CAPITAL

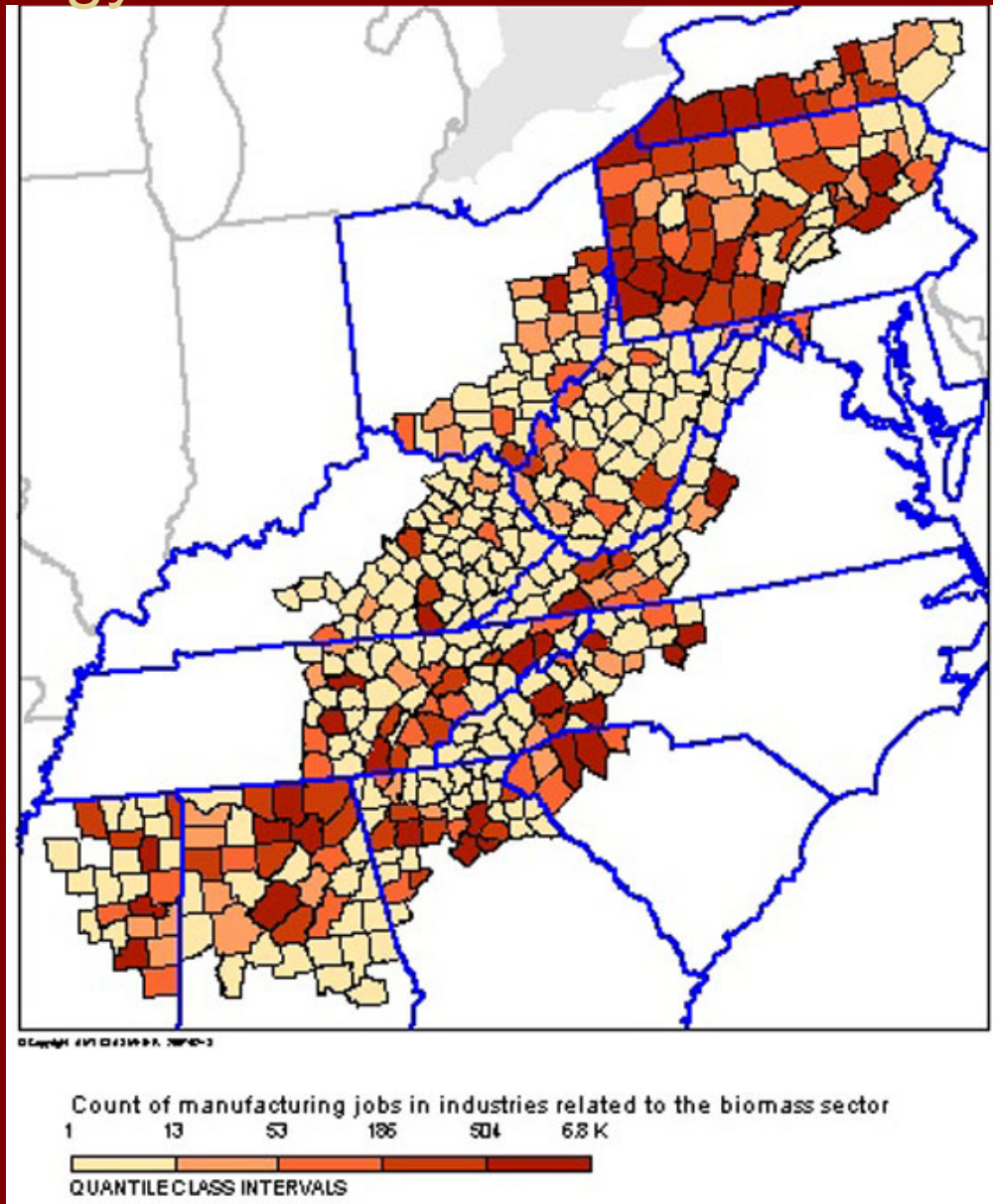
Aim for activities with the highest multiplier and most new potential; development expectations should be more than just fuel.

# TAKE THE CASE OF APPALACHIA: Estimated Biomass Energy-Related Jobs

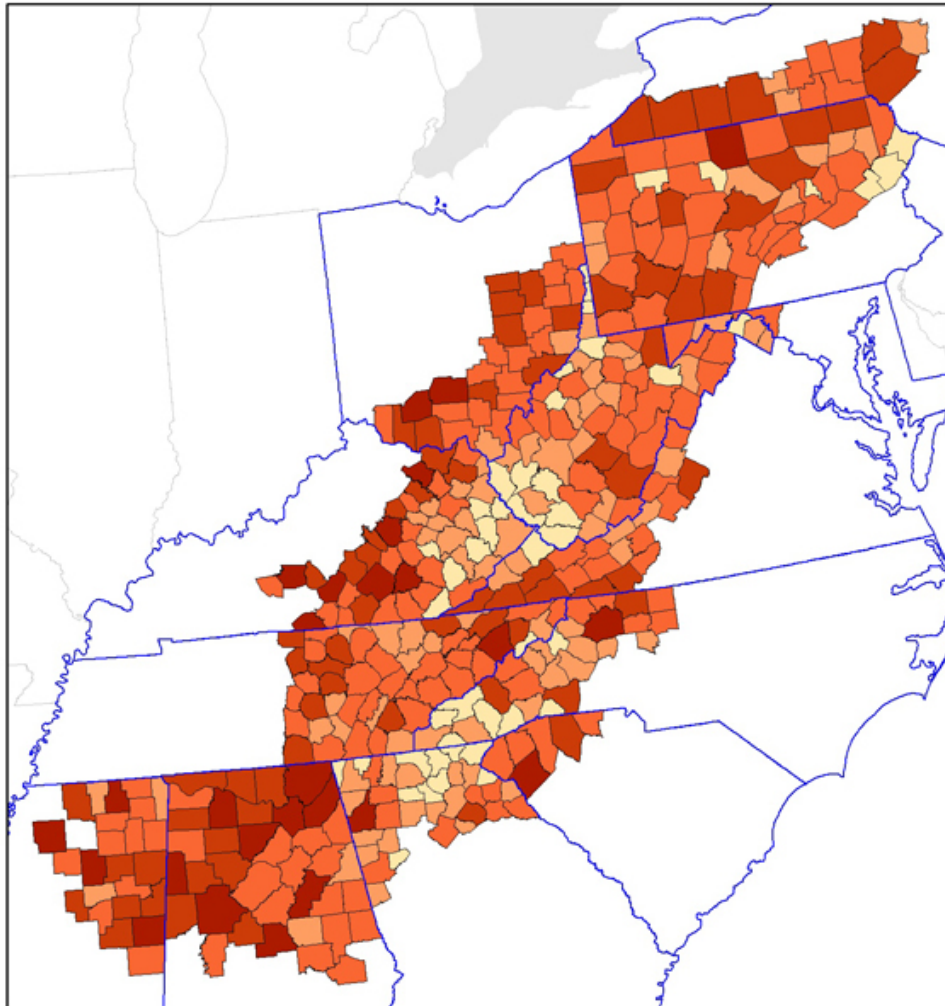
81,836 jobs and 912 establishments have potential to manufacture components relevant to the biomass-related industries

Nine states have counties over 1,000 jobs.

Twelve states have counties with over 500 jobs.



## LIGNOCELLULOSE BIOMASS POTENTIAL OF APPALACHIAN COUNTIES



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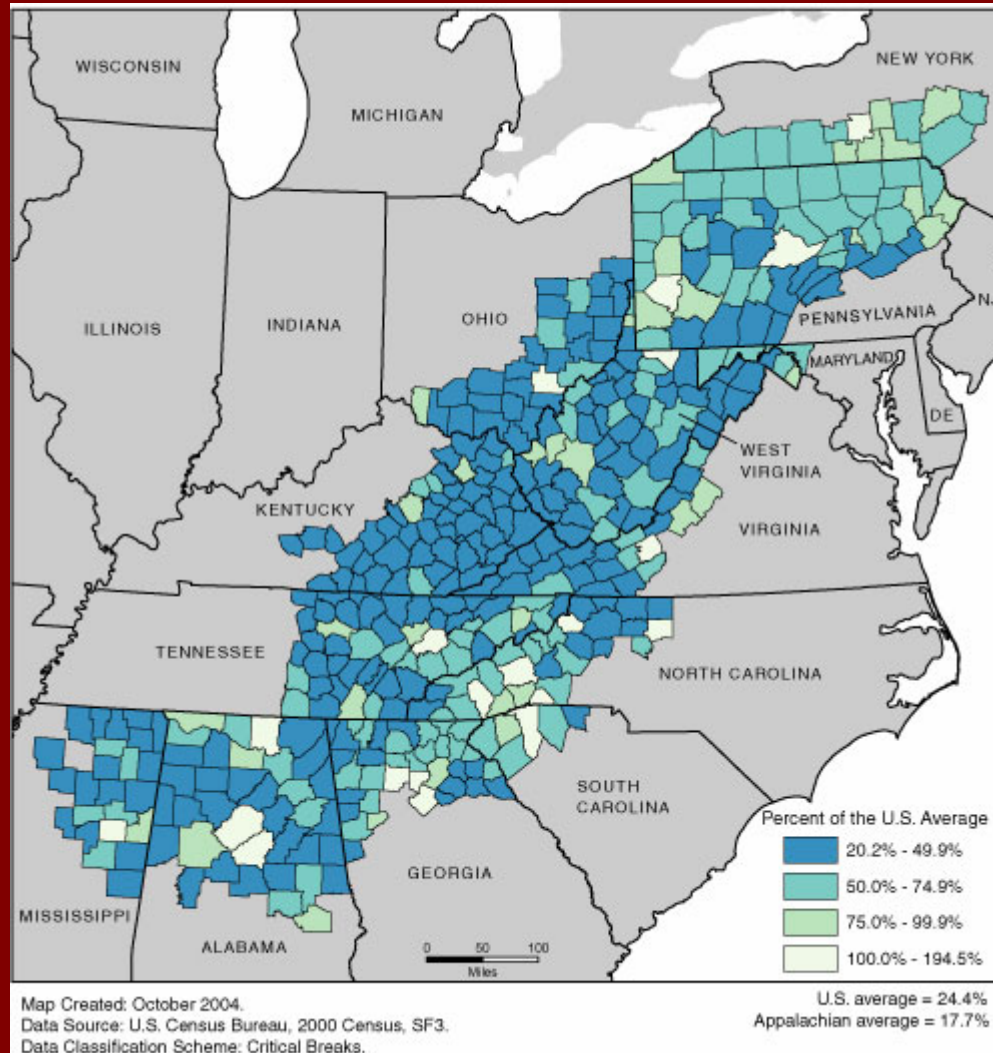
### Lignocellulose Based Ethanol Potential Based on NREL

Code	Potential	Tonnes/yr Lignocellulose production
	V. Low	<50,000
	Low	50,000 - 100,000
	Mod	100,000 - 200,000
	High	200,000 - 300,000
	V. High	>300,000

AGAINST THIS IS THE  
CURRENT REALITY

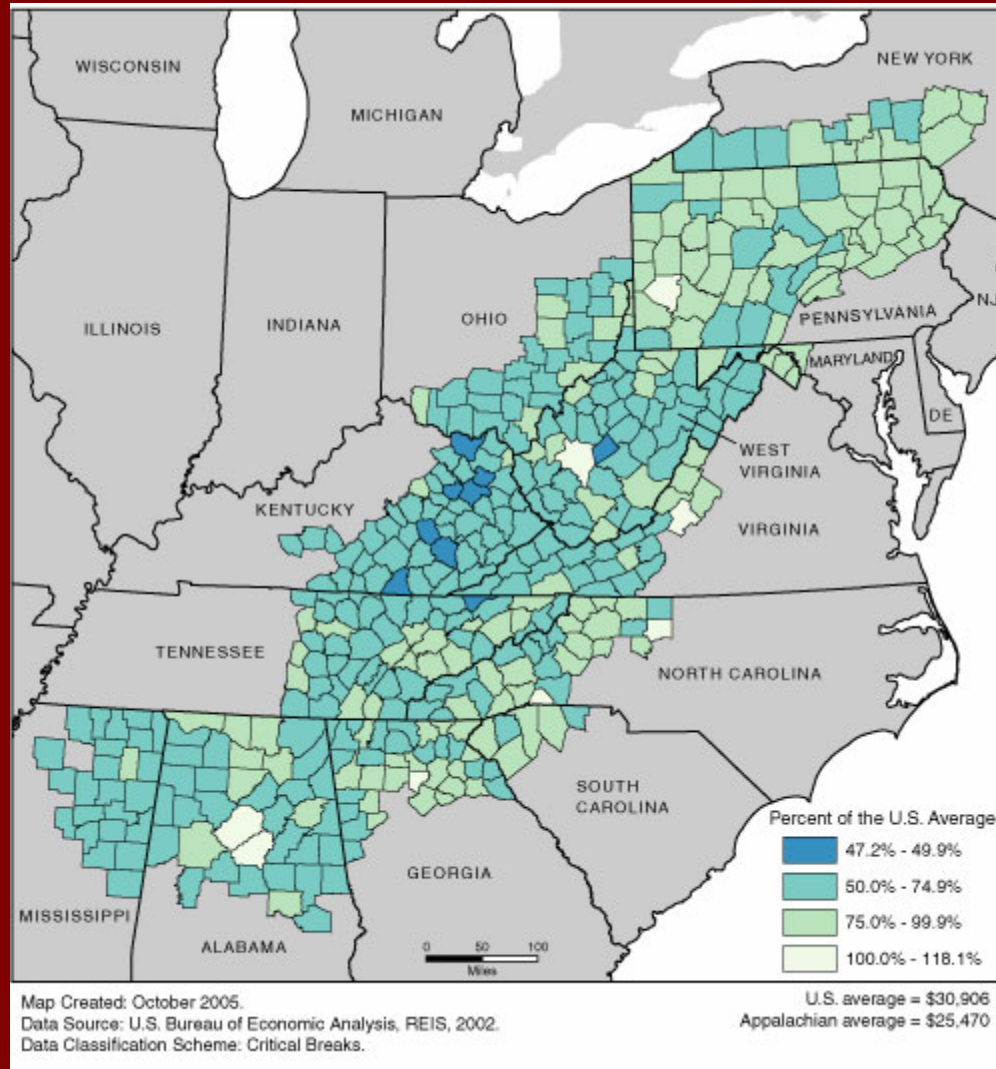
APPALACHIA AS A  
MICROCOSISM OF RURAL  
COMMUNITY CONTEXT

## Relative College Completion Rates in Appalachia, 2000 (County Rates as a Percentage of the U.S. Average)



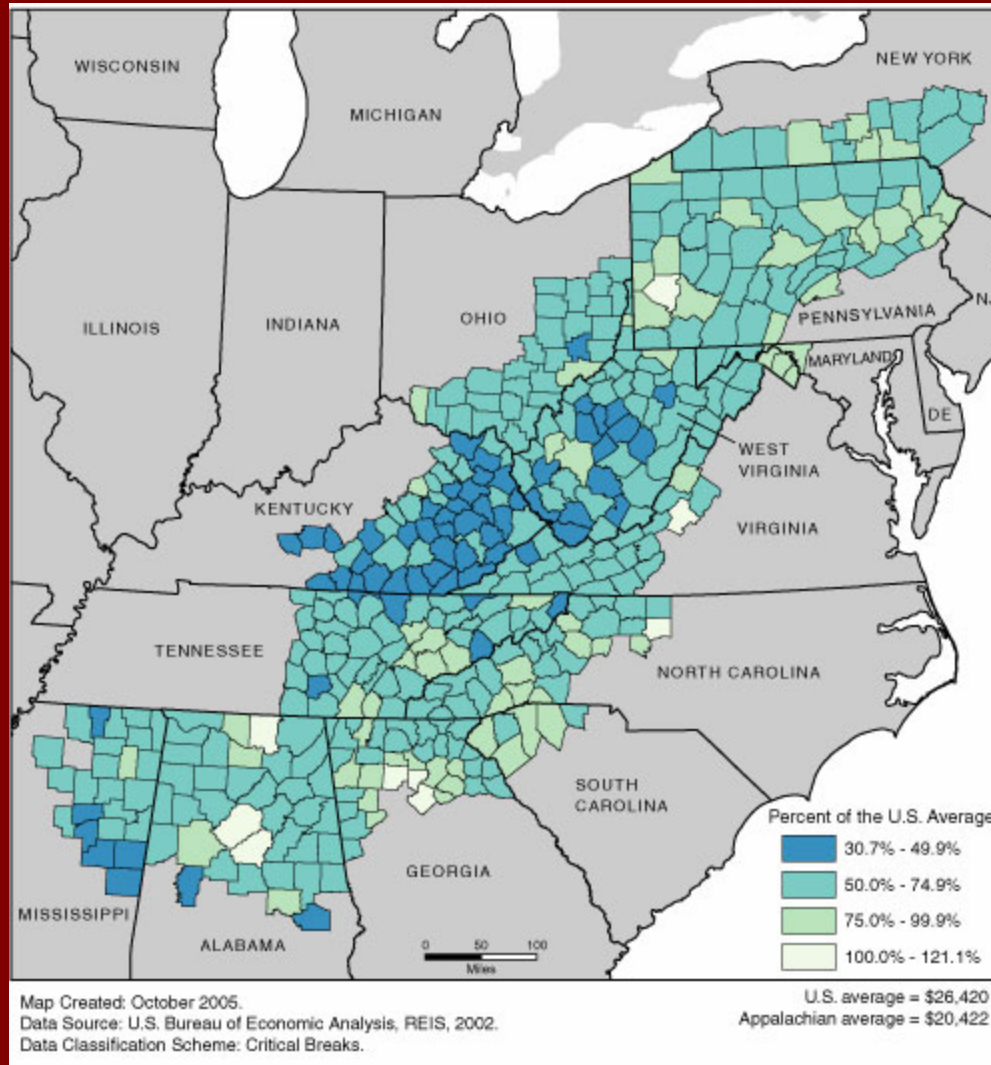


## Relative Per Capita Income Rates in Appalachia, 2002 (County Rates as a Percentage of the U.S. Average)

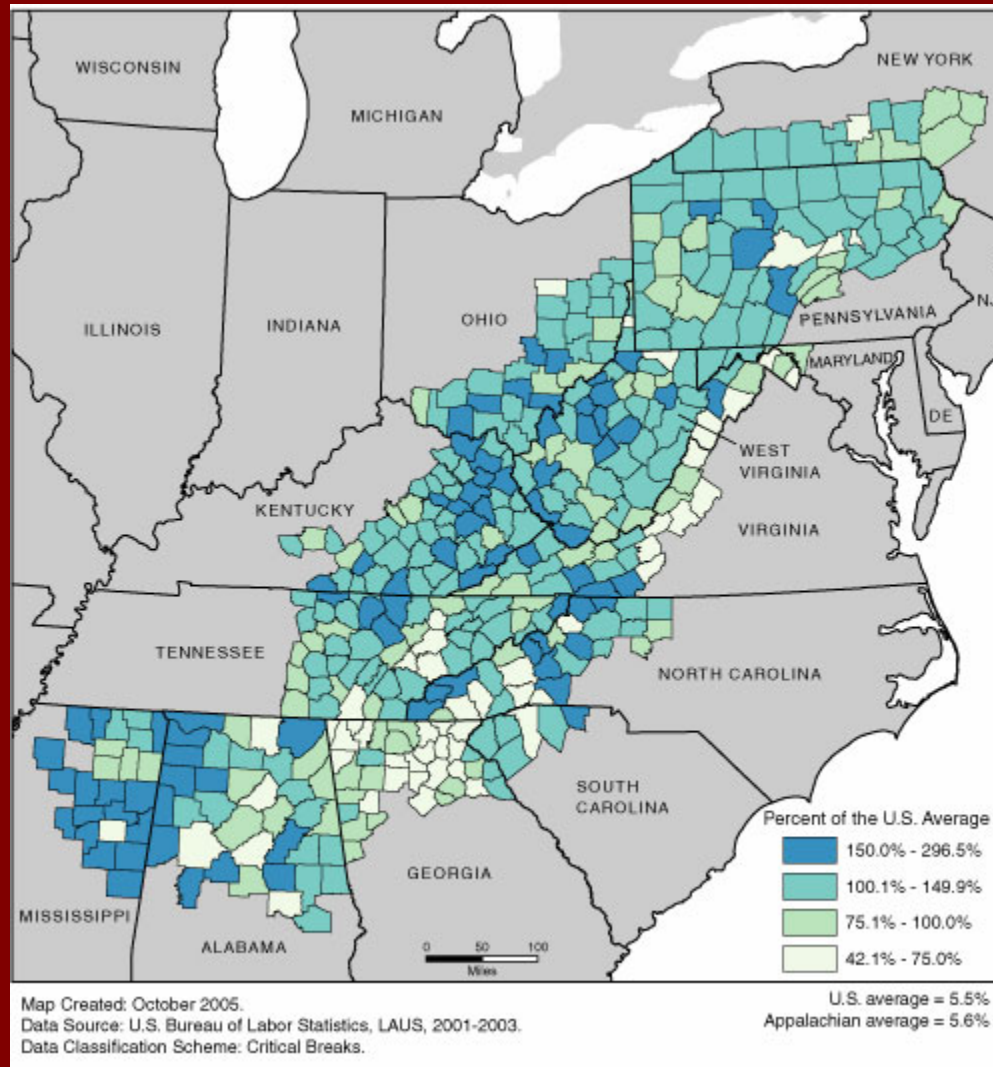




## Relative Per Capita Market Income Rates in Appalachia, 2002 (County Rates as a Percentage of the U.S. Average)



# POPULATION CHANGE 2000-2001



# What is the Policy Frame?

**FUEL AT ANY COST**

What Should it be, Given the  
Challenges Facing Rural  
Areas?

**SUBSIDIES TIED TO  
DEVELOPMENT**

# FEDERAL PROGRAMS 2007

- **Biomass Commercial use Grant Program [USDA]**
  - Promote use of forest biomass use. Any commercial user of biomass can apply for grants of \$20 per ton every year through 2016.
- **Rural Business Enterprise Grant [Rural Business Cooperative Service]**
  - \$40 million in grant money annually to finance development of small or emerging rural businesses.
- **Cellulosic Biomass Ethanol Conversion Assistance [DOE]**
  - \$400 million in FY2007. Accelerate growth cellulosic biomass ethanol production to 1 million gallons by 2015 *small feedstock producers and rural business participate.*
- **Conversion Assistance for Cellulosic Biomass, Waste Derived Ethanol, Approved Renewable Fuels [DOE]**
  - \$250 million FY2007, \$400 million FY2008 for commercial producers. Build production facilities for waste bi-products.
- **Business and Industry Guaranteed Loans [Rural Development Business Cooperative Association]**
  - Guarantees for 80% loans working capital, focusing on rural communities with populations below 50,000 people are eligible.
- **Regional Bioeconomy Development Grants [USDA]**
  - Establishes grants for support and promotion of the growth of region's bioeconomy.

THESE PROGRAMS ARE A START, BUT THEY COULD INCLUDE SO MUCH MORE...

A DETAILED DESCRIPTION FINDS NOTHING ABOUT LINKS TO COMMUNITY ECONOMIC DEVELOPMENT

THE PATHWAY TO DEVELOPMENT IS INDIRECT AND MISSES THE OPPORTUNITY TO BUILD CAPACITY IN RURAL AREAS

PROGRAM STATE	Feed stock	Production	Distribution	Fueling Stations	Gov't Fleet	Consumer AFV	R & D	Commercial Use
National	2	2					1	3
Alabama								
Alaska								
Arizona								
California								
Colorado								
Connecticut								
Delaware								
Florida								
Georgia								
Hawaii								
Idaho								
Illinois								
Indiana								
Iowa								
Kansas								
Kentucky								
Louisiana								
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Nebraska								
Nevada								
New Hampshire								
New Jersey								
New Mexico								
New York								
North Carolina								
North Dakota								
Ohio								
Oklahoma								
Oregon								
Pennsylvania								
Rhode Island								
South Carolina								
South Dakota								
Tennessee								
Texas								
Utah								
Vermont								
Virginia								
Washington								
West Virginia								
Wisconsin								
Wyoming								
TOTAL	6	25	6	26	16	20	11	5

# What Rural Communities Need

- **Human Capital** —USDA and DOE both admit they do not have the people to run the facilities
- 
- **Infrastructure** —the roads, water supply, and waste facilities are not up to snuff
- **Regulations Against Incentive Wars** —without a strong commitment to “policy neutrality” rush to biofuels will start a new bidding war

**ENERGY IMPACT STATEMENTS**



# WHAT TO DO? ENERGY IMPACT STATEMENTS

- Start with a **realistic appraisal** of the conditions of rural America
- Construct **scenarios** around likely conditions
- Identify **social choices**; build them into the analysis and decision making process
- Run simulations aimed at **exercising alternative futures**
- Watch out for **unintended consequences**