Energy Facts

A Clean Energy Economy for Arkansas: Building Rural Communities Through Renewable Resources Development

Known as "The Natural State", Arkansas is rich in natural resources, including vast areas of fertile land and an abundance of springs, lakes and streams. Historically, Arkansas has had a stable and increasingly diverse economy, including a large agricultural sector. But the global economic downturn is being felt across the state, with 41,000 jobs lost since the middle of 2008[1], most of them in rural communities.

Arkansas' rural economy is in a unique position to benefit from comprehensive clean energy and climate legislation currently under debate in Washington. A comprehensive clean energy and climate bill will boost farm income by creating new markets for carbon offsets—credits given for reducing greenhouse gas (GHG) emissions in sectors like agriculture and forestry—and clean energy, bringing new revenues to Arkansas and helping its rural communities capture the jobs of the 21st century. Instead of importing energy from across the globe, Arkansas could become a key supplier of clean energy and the tools to produce it.

More Jobs, Cleaner Energy, Stronger Rural Communities in Arkansas

Arkansas' central geographic location in the U.S. and strong business community make it a prime spot for the manufacture of components for clean energy production facilities. Under a national policy to curb GHG pollutants and rapidly develop renewable energy resources, Arkansas businesses can tap lucrative opportunities in clean energy development, including wind power, sustainable, low-carbon biofuels and bioenergy, biogas and energy efficiency. Arkansas farmers will benefit from multiple new revenue sources, including land leases for wind turbines, sales of biomass feedstocks and energy to local utility companies, as well as carbon offsets generation. Taking advantage of these opportunities would create thousands of new jobs in Arkansas and give a big economic boost to rural communities across the state.

New Income for Arkansas Farmers from Reducing Pollution

Comprehensive clean energy and climate legislation will establish national limits on GHG pollutants and create a new market for carbon offsets with environmental safeguards in place to ensure offset credits maintain a high value. Because agriculture and forestry are exempt from these limits, Arkansas farmers, ranchers, and foresters can generate new income by selling high-quality carbon offsets, earned by reducing their direct emissions or enhancing carbon sequestration in soils and trees. In 2015, Arkansas has the potential to produce offsets totaling 4.3 million metric tons (MMt) of CO_2e from projects in agriculture, landfill gas, and forestry, bringing in revenue of $30 million. In 2030, these totals would increase to 6.4 $MMtCO_2e$ and revenue of $69 million.[3]

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Arkansas Opportunities in Clean Energy and Energy Efficiency[2]				
Energy Source	**Potential Output**	**Impact on Energy Production**	**Carbon Reduced**	**Economic Benefits**
Wind Power	2,460 MW = 7.5 million MWh of electricity per year	16% of all electricity would be wind-powered	7.1 million metric tons	For 1,000 MW of capacity: 500 permanent jobs, $830 million in economic activity over 30 years
Biofuels	770 million gallons per year just from existing crop residues	50% of all gasoline would be replaced with biofuels	6.7 million metric tons	$38,000 in revenue to average rice farm
Biopower	Replace 10% of coal = 2.35 million MWh per year	5% of all electricity would be biopowered	2.2 million metric tons	700 permanent jobs
Biogas	145,000 metric tons of methane	336,000 MWh of electricity per year	Equivalent to 3 million metric tons of CO_2	$23 million worth of homegrown energy per year
Energy Efficiency	Energy efficiency resource standard of 15% electricity savings and 10% natural gas savings	Annual electricity savings of 6.4 million MWh, gas savings of 73.5 million therms	4.2 million metric tons	2,570 net jobs created, $1.8 billion net energy savings

[1] See http://www.bls.gov/lau/ and http://www.allbusiness.com/economy-economic-indicators/economic-indicators/12526196-1.html

[2] For more information on all calculations, please see *A Clean Energy Economy for Arkansas*: http://www.nrdc.org/energy/cleanar/files/cleanar.pdf

[3] Based on University of Illinois, Yale University and University of California EAGLE analysis of the American Clean Energy and Security Act (ACES, H.R. 2454); see: http://www.e2.org/jsp/controller?docName=jobs

[4] http://www.pewcenteronthestates.org/uploadedFiles/Clean_Economy_Report_Web.pdf

Arkansas Renewable Energy Facts

- A recent study found that clean energy jobs in Arkansas grew by almost 8 percent over the ten year period ending in 2007, more than twice the growth rate of overall jobs.[4]
- At least 40 Arkansas counties have commercially viable wind resources. Arkansas' central location also makes it a prime spot for the manufacture of components for renewable energy production facilities, including commercial wind facilities.
- Arkansas is ideally positioned to become a center of next generation biofuels production. If produced sustainably, existing usable crop and timber residues could produce roughly 770 million gallons of transportation fuels each year, equivalent to 50 percent of all gasoline used in the state. Essential to harvesting these benefits, however, is putting a price on carbon—including biomass energy. Without a market signal to drive innovation towards better performing, low-carbon biofuels, next generation fuels will remain a distant promise.
- The same residues can be used for direct heat and electricity production in biomass-fired power plants. Farms across much of Arkansas are close enough to an existing coal-fired plant to cost-effectively supply biomass feedstock for co-firing with coal.
- As one of the nation's leading livestock and poultry producers, Arkansas has the opportunity to meet on-farm needs for natural gas and electricity, and earn offset credits for cutting methane emissions, by expanding use of biodigesters to produce biogas recaptured from animal waste.

Clean Energy and Climate Legislation Will Strengthen Arkansas' Rural Economy

Transitioning to a low-carbon economy will set the stage for economic growth and job creation in rural communities across Arkansas. Comprehensive clean energy and climate legislation will allow Arkansas to capitalize on its potential to build a strong, long-term economy on the foundation of its abundant renewable resources and strategic location, and become a national leader in producing the clean energy America needs.

For more information about state renewable energy opportunities, visit NRDC's interactive map at http://www.nrdc.org/energy/renewables/default.asp

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