

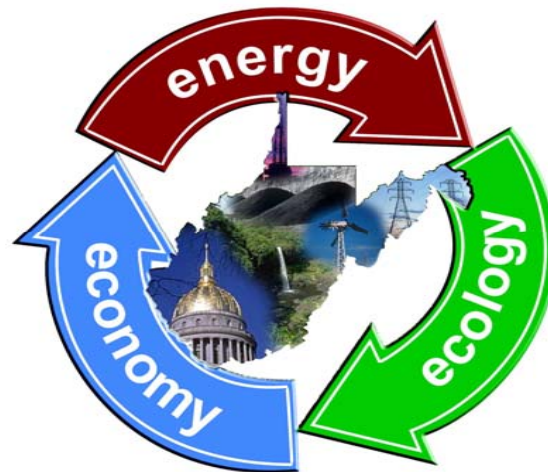
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Coal Utilization Technologies: Opportunities for Deployment

West Virginia's Energy Roadmap



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September 22, 2004

Background

- **Task force created by executive order of Governor Wise**
- **Representatives from academia, industry, labor, NGOs, research, state government, federal government, environmental interest groups & others**
- **Charged with developing energy roadmap**



Guiding Principles

- **Maximize economic benefits and affect as many West Virginians as possible**
- **Support the co-existence of West Virginians within their ecosystem**
- **Promote West Virginia as a leader in efficient technology to supply, deliver, and use energy**



Mission

- **Stimulate the economy**
- **Provide enhanced employment opportunities for West Virginians**
- **Improve the quality of life**
- **Protect the State's air, land, and water**
- **Provide outreach and education programs**
- **Enhance the State's social, cultural, economic, and environmental assets**



Goals

- **Maintain WV's position as a world leader in competitively priced and reliably available fossil fuels.**
- **Demonstrate leadership for WV in advanced research, development, and demonstration of clean energy technologies.**
- **Establish West Virginia as a leader in non-traditional energy-related technologies and products.**
- **Establish WV as a national leader in developing energy projects using its own resources, including its workforce and natural resources.**



Recommendations and Action Items

- **Economic Development**
- **Energy Generation**
- **Energy Infrastructure**
- **Resource Production**
- **Emerging Energy and Environmental Technologies**



Workshops

- **Wind Energy**
- **Coalbed Methane**
- **Hydrogen**
- **Energy Infrastructure**

- **Coal Workforce Development**
- **Coal in Economic & Homeland Security**
- **Coal Utilization Technologies**



Workshop Focus

- **Assessing opportunities for deployment of advanced coal technologies for power generation and transportation fuels in West Virginia.**



Emerging Energy and Environmental Technologies - Action Item

- **Promote the commercial and residential use of clean energy technologies, including distributed energy generation and renewable energy forms.**



Emerging Energy and Environmental Technologies - Action Item

- **Establish public/private partnerships that benefit research institutions and commercial enterprises that engage in the commercialization of energy and environmental technologies.**



Emerging Energy and Environmental Technologies - Action Item

- **Publicize and market the actions that the State has taken and will take to become an energy leader in energy and environmental technology research, development, and commercialization; greenhouse gas emissions reductions; and, energy efficiency.**



Emerging Voluntary Program



**CARBON OFFSET
OPPORTUNITY PROGRAM**

A tool for collaborative project development



CO-OP: What Is It?

- To assist industry, government, and non-governmental organizations in catalyzing collaborative GHG reduction and offset projects and activities, with a focus on carbon sequestration, in a way that emphasizes voluntary actions by industry
- A web-based system that serves as a central informational resource to match potential investors with contemplated GHG reduction and offset projects
- Stimulates project development



CO-OP Timeline

- Initial version completed in January 2004
- Pilot version deployed initially in the State of West Virginia in summer 2004 by Governor Wise (www.offsetopportunity.com)
- To be deployed on a national basis in fall 2004 with the assistance of the SECARB
- Transition from a federally sponsored initiative to a privately sponsored effort



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