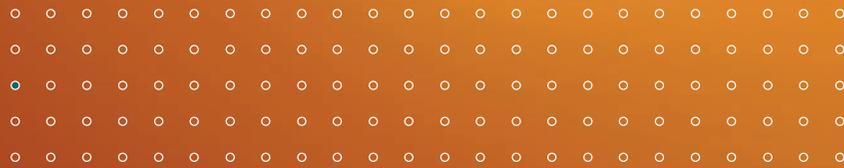


LIBERATION. THE FIRST STEP TOWARD SUSTAINABLE FREEDOM AND SECURITY.



BREAKING THE CHAINS OF ENERGY DEPENDENCE SOUTHERN STATES ENERGY BOARD 2007 ANNUAL REPORT

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SOUTHERN STATES
SSEB
ENERGY BOARD

07



BREAKING THE CHAINS OF ENERGY DEPENDENCE SOUTHERN STATES ENERGY BOARD ANNUAL REPORT

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The list of members serving on the Board as of July 31, 2007. For a current roster, please contact the SSEB staff or visit our website at www.sseb.org.

9 Value-Added Services to Member States

All of the activities of the Board, as described in this *Annual Report*, benefit the southern region in the development of a sound economy, proper utilization and diversity of energy sources and increased industrialization, while providing for protection of the environment to ensure public health, safety and welfare.

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The Honorable Joe Manchin, III
Governor of West Virginia
Chairman, Southern States Energy Board 2006-2007

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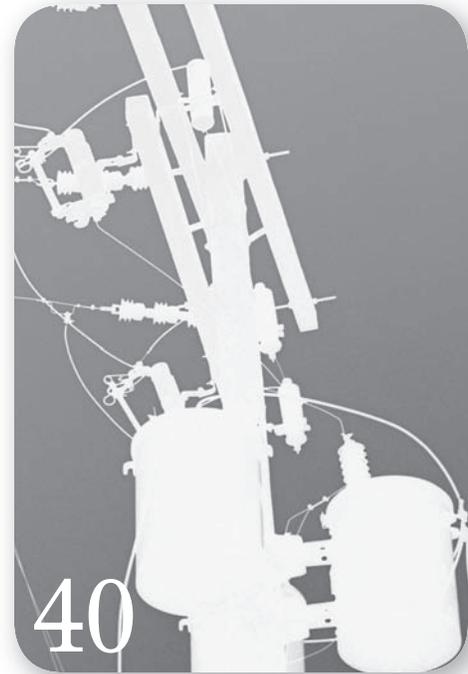
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Sources of Support

The Southern States Energy Board's core funding comes from annual appropriations from the 18 member states and territories.

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Selected Reports & Publications

Annually, numerous requests for specific technical and policy information occur from SSEB members, state and federal government officials, legislators and other parties, including the general public.

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SSEB Staff

Staff Directory



Southern States Energy Board

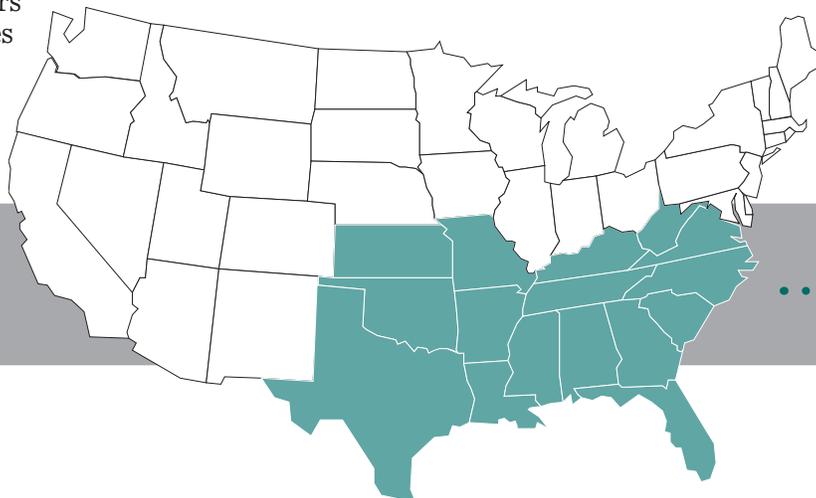


The Southern States Energy Board (SSEB) is a non-profit interstate compact organization created in 1960 and established under Public Laws 87-563 and 92-440. The Board's mission is to enhance economic development and the quality of life in the South through innovations in energy and environmental policies, programs and technologies. Sixteen southern states and two territories comprise the membership of SSEB: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, U.S. Virgin Islands, Virginia and West Virginia. Each jurisdiction is represented by the governor and a legislator from the House and Senate. A governor serves as the chair and legislators serve as vice-chair and treasurer. Ex-officio non-voting Board members include a federal representative appointed by the President of the United States, the Southern Legislative Conference Energy and Environment Committee Chair and SSEB's executive director, who serves as secretary.

SSEB was created by state law and consented to by Congress with a broad mandate to contribute to the economic and community well-being of the southern region. The Board exercises this mandate through the creation of programs in the fields of energy and environmental policy research, development and implementation, science and technology exploration and related areas of concern. SSEB serves its members directly by providing timely assistance to develop effective energy and environmental policies and programs and represents its members before governmental agencies at all levels.

THE SOUTHERN STATES ENERGY BOARD'S LONG-TERM GOALS ARE TO:

- Perform essential services that provide direct scientific and technical assistance to state governments.
- Develop, promote and recommend policies and programs on energy, environment and economic development that encourage sustainable development.
- Provide technical assistance to executive and legislative policy-makers and the private sector in order to achieve synthesis of energy, environment and economic issues that ensure energy security and supply.
- Facilitate the implementation of energy and environmental policies between federal, state and local governments and the private sector.
- Sustain business development throughout the region by eliminating barriers to the use of efficient energy and environmental technologies.
- Support improved energy efficient technologies that pollute less and contribute to a clean global environment while protecting indigenous natural resources for future generations.





2006-2007 Board Membership

The list of members below reflects officials serving on the Board as of July 31, 2007. For a current roster, please contact the SSEB staff or visit our website at www.sseb.org.

Executive Committee

Chairman, 2006-2007

*The Honorable Joe Manchin, III,
Governor of West Virginia*

Vice Chairman

Senator John C. Watkins, Virginia

Treasurer

Representative Myra Crownover, Texas

Members, Executive Committee

*The Honorable Haley Barbour, Governor of
Mississippi*

*The Honorable Matt Blunt, Governor of
Missouri*

Senator Jimmy Jeffress, Arkansas

Senator Jeff Rabon, Oklahoma

Representative Harry Geisinger, Georgia

*Representative John Raymond Reeves,
Mississippi*

Federal Representative

The Honorable Brian C. Griffin

Secretary to the Board

*Kenneth J. Nemeth, Executive Director,
Southern States Energy Board*

Southern Legislative Conference Energy and
Environment Committee Chair

Representative Ron Peters, Oklahoma

Members of the Board

Alabama

The Honorable Robert Riley, Governor

Senator Jimmy W. Holley

Representative Locy "Sonny" Baker

*Representative Pete B. Turnham, Emeritus,
House Alternate*

Representative Joseph Mitchell, House Alternate

Arkansas

The Honorable Mike Beebe, Governor

Senator Jimmy Jeffress

Representative Allen Maxwell

Florida

The Honorable Charlie Crist, Governor

*Mr. Alexander Mack, Florida Energy Office,
Governor's Alternate*

Senator Lee Constantine

Representative Dave Murzin

Georgia

The Honorable Sonny Perdue, Governor

*Mr. Jimmy Skipper, Attorney at Law, Sumter
County, Governor's Alternate*

Senator Doug Stoner

Representative Harry Geisinger

Representative Jeff Lewis, House Alternate

Kentucky

The Honorable Ernie Fletcher, Governor

*Dr. Talina R. Mathews, Kentucky Office of
Energy Policy, Governor's Alternate*

Senator Robert Stivers

Representative Rocky Adkins

Louisiana

*The Honorable Kathleen Babineaux Blanco,
Governor*

*Mr. Scott Kirkpatrick, Office of the Governor,
Governor's Alternate*

Senator Max Malone

Representative Wilfred Pierre

Maryland

The Honorable Martin O'Malley, Governor

Senator Thomas M. Middleton

Delegate Dereck E. Davis

Mississippi

The Honorable Haley Barbour, Governor

Senator Thomas E. King, Jr.

Representative John Raymond Reeves

Missouri

The Honorable Matt Blunt, Governor

*Mr. Ed Martin, Office of the Governor,
Governor's Alternate*

Senator Kevin Engler

Representative Ed Emery

2006-2007 Board Membership

continued

North Carolina

*The Honorable Michael F. Easley, Governor
Mr. Larry Shirley, State Energy Office,
Department of Administration, Governor's
Alternate
Senator David W. Hoyle
Speaker Joe Hackney*

Oklahoma

*The Honorable Brad Henry, Governor
The Honorable David S. Fleischaker, Secretary
of Energy, Governor's Alternate
Senator Jeff Rabon
Representative Dennis Adkins*

Puerto Rico

*The Honorable Anibal Acevedo Vilá, Governor
Dr. Javier A. Quintana, Solid Waste
Management Authority
Representative Severo Colberg Toro*

South Carolina

*The Honorable Mark Sanford, Governor
Mr. Justin Stokes, Office of the Governor,
Governor's Alternate
Senator John C. Land, III
Representative Robert "Skipper" Perry, Jr.*

Tennessee

*The Honorable Phil Bredesen, Governor
Mr. Brian Hensley, State Energy Division,
Department of Economic and Community
Development, Governor's Alternate
Senator Jerry W. Cooper
Representative Gary Odom*

Texas

*The Honorable Rick Perry, Governor
Mr. Michael L. Williams, Railroad Commission of
Texas, Governor's Alternate
Senator Kip Averitt
Representative Myra Crownover*

U.S. Virgin Islands

*The Honorable John P. deJongh, Governor
Mr. Bevan R. Smith, Jr., Virgin Islands Energy
Office, Governor's Alternate*

Virginia

*The Honorable Tim Kaine, Governor
Dr. Michael Karmis, Virginia Center for Coal
and Energy Research, Virginia Tech, Governor's
Alternate
Senator John C. Watkins
Delegate Harry R. Purkey*

West Virginia

*The Honorable Joe Manchin, III, Governor
Dr. Patrick Esposito, Sr., Governor's Energy
Advisor, Governor's Alternate (2006-2007)
Mr. John F. Herholdt, West Virginia Energy
Office, Governor's Alternate (appointed July 2007)
Senator William R. Sharpe, Jr.
Delegate Harold K. Michael*

Federal Representative

The Honorable Brian C. Griffin

Secretary to the Board

Kenneth J. Nemeth, Executive Director

Southern Legislative Conference Energy and Environment Committee Chair

Representative Ron Peters, Oklahoma

Value-Added Services to Member States



Participation by all member jurisdictions in the Southern States Energy Board Compact is critical not only to the state but also to the region. All of the activities of the Board, as described in this Annual Report, benefit the southern region in the development of a sound economy, proper utilization

and diversity of energy sources and increased industrialization, while providing for protection of the environment to ensure public health, safety and welfare. SSEB often undertakes state-specific projects with those same goals in mind.

Listed below are value-added services that SSEB member states and its citizens receive as members of the Compact.

- SSEB obtains funding for state and regional projects at the request of its membership, committees and working task forces. This funding provided to our states generally is far in excess of appropriations paid to SSEB by its members.
- SSEB negotiates collective funding for member states on programs that support energy and environmental research, education and training, technology development, regulatory reform and other key issue areas.
- SSEB funds the direct participation of state officials in projects and activities in order to enable states to remain current on new programs, trends and technologies while decreasing the impact of travel on member state budgets.
- SSEB works directly with businesses and industries on specific economic development projects that create and sustain jobs and expand the economy.
- SSEB provides regional forums, summits, conferences and workshops in member states that stimulate and promote economic development while facilitating peer and professional development.
- SSEB conducts training and professional development activities that address energy and environmental programs and technologies.
- SSEB conducts research and recommends solutions to specific issues on request of member state officials and businesses.
- SSEB supports improved energy efficient technologies that pollute less and contribute to a clean global environment while protecting indigenous natural resources for future generations.





Report of the Chairman

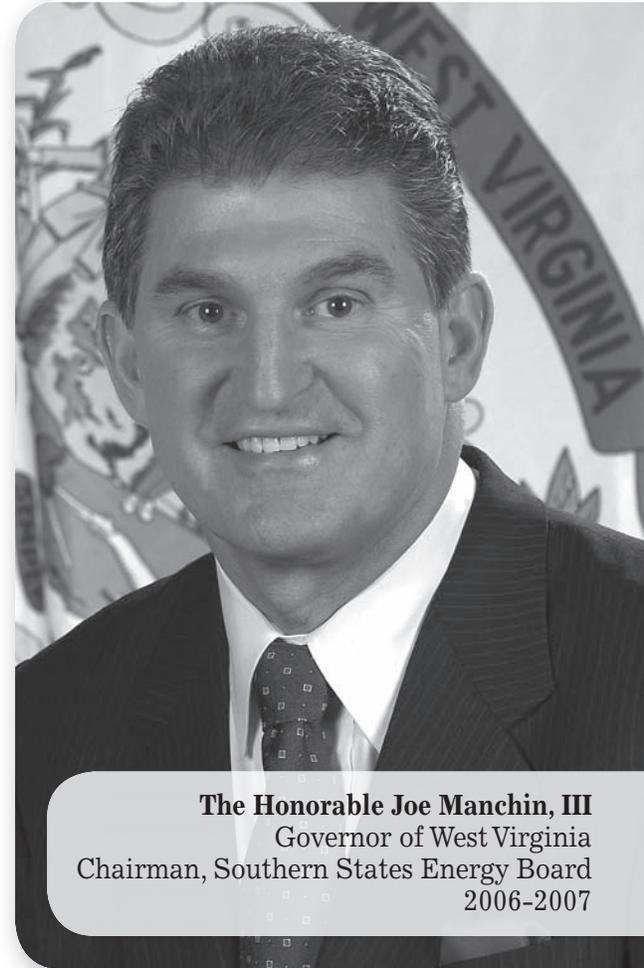
As the Southern States Energy Board celebrates its 47th year of service to the region, it is my pleasure to serve as Chairman of this assiduous organization. Its mission, “to enhance economic development and the quality of life in the South, through innovations in energy and environmental programs, policies and technologies,” is as veritable today as it was when the Board voted for this direction. One of the Board’s key roles is to form government/industry partnerships and collaborations that benefit its member states and the Nation. Such has been the case in the development of the American Energy Security Initiative, the Southeast Regional Carbon Sequestration Partnership and the Southeastern State/Regional Biomass Partnership, which are the focus of this report.

In July of 2006, the Southern States Energy Board unveiled a plan for the United States, the *American Energy Security Study*, to establish energy security and independence through the production of alternative oil and liquid transportation fuels from its vast domestic resources that include coal, oil shale and biomass. That plan was the result of a leadership study initiative begun by the Board in 2005 to target the Country’s extreme dependence on imported oil and what could be done to eliminate the resulting economic, national security and environmental problems. The goal of the plan is to eliminate the Nation’s dependence on imported oil by 2030 through “national will” and a series of leadership actions.

The Nation’s homeland

security is at risk as long as we continue to rely on imported sources for our transportation fuels and refuse to begin a national initiative to eliminate our dependence on other countries. The federal government and the states can provide incentives that will bring technology developers, financiers and investors together to create a “national will” to become energy independent. Many of those incentives can be found in the Southern States Energy Board’s *American Energy Security Study* at www.americanenergysecurity.org. Each state needs to perform its own assessment as to how energy independence can be achieved. In February of this year, I wrote to each governor across the Country and asked them to perform this self assessment. Only when each state is aware of its potential and its shortcomings can we begin to build the momentum that is necessary to strive for complete energy independence.

The first American Energy Security Summit was sponsored by the Southern States Energy Board in Alexandria, Virginia, on April 16-18, 2007. The conclave brought together a powerhouse assembly of members of Congress, governors, state legislators, the United States military, the U.S. Department of Energy (DOE), the U.S. Environmental Protection Agency (EPA), business and industry chief executive officers, “Wall Street” financiers, academia, new technology



The Honorable Joe Manchin, III
Governor of West Virginia
Chairman, Southern States Energy Board
2006-2007

developers, media interests and private citizens.

A Zogby International poll of the American people, conducted for the Southern States Energy Board on April 9-11, 2007, was the signature release of the initial Summit session, with some startling revelations. Ninety-five percent of Americans responding to the poll believed that eliminating our dependence on imported oil should be one of the Nation’s top five priorities. Rapidly expanding production of alternative fuels such as coal, biomass and oil shale and enhanced oil recovery was supported by 95 percent. When asked if the federal and

state governments should take aggressive action to reduce investment risks to ensure the deployment of alternative fuels, 84 percent strongly agreed. The cost of gasoline and its effects on the 2008 presidential election also was posed. Seventy-six percent listed this issue as a key indicator of their voting preference for a candidate. When asked about the development of a "price support" mechanism to void predatory practices by imported oil suppliers and speed alternative liquid fuels into the marketplace, 67 percent approved of this strategic security mechanism. Some of these questions have been construed as controversial, yet overwhelming support came from Americans polled across the country.

During the afternoon of April 16 at the Summit, a live, video teleconference linked our Alexandria, Virginia, meeting with a Utah Energy Summit held in Salt Lake City and sponsored by NextGen Energy Council. This special event enabled Governors and eminent chief executive officers from industry to converse across the Country on energy issues of mutual interest. While Governor Jon Huntsman of Utah and I co-chaired the cross country link, other participating Governors were Ted Strickland of Ohio; Dave Freudenthal of Wyoming; Brian Schweitzer of Montana; and Jim Gibbons of Nevada. Industry executives present were Paul Evanson of Allegheny Energy; Gregory Boyce and Fred Palmer of Peabody Energy; and J. Brett Harvey of CONSOL. The focus of this unprecedented one hour session was on the use of our plentiful and available indigenous energy resources to develop transportation fuels

that can lessen our dependence on imported oil. The discussions centered on coal, biomass, oil shale, renewables, carbon sequestration, transmission siting and transportation fuel efficiency and conservation.

While our Nation moves aggressively toward a new energy future, we must develop the infrastructure and the technologies required to preserve our environment. In 2003, DOE began funding a national framework of seven regional carbon sequestration partnerships with a common goal of commercially deploying carbon sequestration technologies in an effort to reduce greenhouse gas intensity by 18 percent by 2012. The Southern States Energy Board manages the Southeast Regional Carbon Sequestration Partnership, or SECARB, which consists of a 13-state region from eastern Texas to the Carolinas and from Florida to West Virginia. SECARB embodies a diverse membership of more than 100 partners, including technical experts from the region's key energy providers, technology providers, coal companies, DOE national laboratories and universities.

SECARB completed Phase I of the program in 2006, during which its partners screened potential sources and sinks for carbon sequestration. The findings revealed that potential sources of carbon dioxide (CO₂) emissions are located throughout the region, with large coal-fired power plants being the most prominent emitters. Also, the findings demonstrate that the region has

numerous and diverse terrestrial and geologic sinks that could serve as most promising basins for sequestering CO₂.

The four-year Phase II program began in 2006 and focuses on the most promising opportunities for geologic sequestration within the region that promote the development of a framework and infrastructure necessary for the validation and deployment of carbon sequestration technologies. Phase II consists of three multifarious field tests in four locations, including enhanced coalbed (CBM) methane projects in Central Appalachia (Virginia) and the Black Warrior Basin (Alabama); a saline reservoir field test near Escatawpa, Mississippi, at Mississippi Power Company's Victor J. Daniel Power Plant; and a Gulf Coast stacked storage project at the Cranfield oil field east of Natchez, Mississippi. For additional information regarding the science behind the SECARB field tests, please visit the Partnership's website at www.secarbon.org.

The Southern States Energy Board also lends



technical assistance to its member states through a program which promotes biobased products and bioenergy development. Our Southern States Biobased Alliance, formed in July 2001, partners gubernatorial appointees representing state governments with the public or private sector who are active in energy, environment, agricultural and forestry issues. Since 2003, the Alliance has served as the lead regional body for the National Biomass (State/Regional) Partnership, a DOE program consisting of five regional partnerships. The Southern States Energy Board manages the Southeastern State/Regional Biomass Partnership.

The following are the current projects that are being conducted under the auspices of the Partnership:

Alabama is developing a liquid biofuels plan that will increase the awareness and knowledge base of state policy-makers and serve as a guide for future state investment in the development of the biofuels industry in Alabama.

Arkansas is organizing and conducting a workshop on energy and value-added products as it relates to biomass utilization in the state and the region.

Florida is creating a portfolio of resource maps and identifying installed and potential biomass energy production capacity in the state. Additionally, the Florida Energy Office seeks to create a Florida Biomass Network that will assist with strategic planning for its biomass program and provide advice on specific projects in the

state.

Georgia is forming a Biomass Task Force that will “assess the state of the industry” including research, development and demonstration as well as commercialization efforts to develop a strategic “roadmap” for future development in the state.

Kentucky is working with County Extension agents in a process that will result in the location, development and distribution of decision aids to allow their clientele to reduce energy consumption, consider alternative energy sources and receive guidance on grant applications.

Louisiana is documenting biomass use and potential energy in the state for stakeholders who share an interest in developing efficient energy systems for the economies of Louisiana.

Missouri is investigating the procurement and marketing strategies that industries based on crop residue and energy crops can utilize with a focus that will provide a unique perspective that may be applied to all bio-processors of new agricultural biomass products and technologies.

North Carolina will facilitate permanent establishment of the North Carolina Biomass Council to provide consultation to the North Carolina Energy Policy Council, the State Energy Office and the North Carolina General Assembly on implementation of bioenergy studies and demonstration projects through the establishment of a biomass deployment roadmap for the state.

Puerto Rico is developing market data on availability, quality and cost of biomass solid waste feedstock, determining Puerto Rican market

applications, conducting engineering analysis for scale-up and for economic feasibility of various biomass energy technologies and building an information base on feedstock versatility, with the objective of reserving a percentage of electric power generation and diesel fuel consumption for electricity and biodiesel produced from local applications.

South Carolina is providing public and private sector decision-makers with economic and environmental metrics needed to foster production of energy in South Carolina from waste water sewage, poultry waste and waste grease.

Tennessee is analyzing economic benefits of reducing petroleum imports and moving to a more biobased fuel system to help Tennesseans understand how biofuels have a positive impact on the state.

U.S. Virgin Islands is assessing the feasibility of collection and cleaning of landfill biogas to insure the greatest possible use of available biogas resources in the territory.

Virginia will conduct workshops that will increase awareness and understanding of small-scale biodiesel production as well as the opportunities, hazards and considerations of using biodiesel.

West Virginia is developing a conceptual biorefinery and configurations to lay a foundation for detailed economic analysis of the feasibility of a biorefinery in the state.

The Southern States Biobased Alliance and the National Biomass Partnership are making major contributions to the southern region through the leadership of the Southern States Energy Board.

Our Nation needs to move aggressively toward a new energy future if we are to preserve the economic vitality of this country. We must grasp the opportunity afforded by all of our energy resources if we are to persevere. Coal, oil and oil shale, gas, nuclear, renewables, fuel cells and distributed energy all can be a part of this renaissance but we must have the “national will” to choose to succeed. At the same time, we need to ensure that we are protecting the health of our citizens and striving for a better environment for all the generations to come. I commend this excellent report for your review, and I much appreciate the dedication of the Southern States Energy Board as our members engage in dialogue across Congress and the states to address these important issues.



The Honorable Joe Manchin, III
Governor of the State of West Virginia
Chairman, Southern States Energy Board
2006-2007



Event Photos

2006-2007

THE AMERICAN ENERGY SECURITY SUMMIT “Energy Independence through Domestic Alternative Liquid Fuels” April 16-18, 2007 • Alexandria, Virginia

The Honorable Joe Manchin, Governor of West Virginia, hosts The American Energy Security Summit and provides opening remarks on building a national coalition for energy independence.



The Honorable Joe Manchin (left), Governor of West Virginia, and The Honorable William Anderson (right), Assistant Secretary for Air Force Installations, Environment and Logistics, United States Air Force, respond to questions from the media during the American Energy Security Summit.

U.S. Senator Jim Bunning (left), Kentucky, and U.S. Congressman Nick Rahall (right), West Virginia, present an overview of existing and proposed federal policies to accelerate energy security.



U.S. Congressman John Duncan of Tennessee, addresses the topic of alternative liquid transportation fuels and the major user markets.

Event Photos

2006-2007



Representative Rocky Adkins of Kentucky remarks on the indigenous solutions to America's liquid transportation fuel crisis.

Industry executives participate in a plenary session with six of the Nation's governors to discuss a national coalition for energy independence. Left to right: Mr. Paul Evanson, Chief Executive Officer of Allegheny Energy, Inc.; Patrick R. Esposito, Ph.D., Governor's Energy Advisor, West Virginia; Mr. Frederick D. Palmer, Senior Vice President of Peabody Energy; and Mr. J. Brett Harvey, President and Chief Executive Officer of CONSOL Energy. Governors Joe Manchin (West Virginia), Brian Schweitzer (Montana), Jim Gibbons (Nevada), Ted Strickland (Ohio), Jon Huntsman (Utah) and Dave Freudentahl (Wyoming) also participated in the discussion.



Mr. Fred Smith, Chairman, President and Chief Executive Officer of FedEx Corporation, presents an overview of domestic fuel needs in an oil risk environment.

Mr. Gregory Boyce, President and Chief Executive Officer of Peabody Energy, provides the luncheon keynote address at the American Energy Security Summit.



SOUTHERN STATES ENERGY BOARD 46TH ANNUAL MEETING
“Emerging Technologies for America’s Energy Future”
July 14-17, 2006 • New Orleans, Louisiana



The Honorable Ernie Fletcher, Governor of Kentucky and SSEB Chairman from 2004 to 2006, hosts the Board’s 46th Annual Meeting.

The *American Energy Security Study* panelists with Governor Fletcher. From right to left: Mr. Kenneth J. Nemeth, Southern States Energy Board; Dr. Roger Bezdek, Management Information Systems, Inc.; Governor Ernie Fletcher, Kentucky; Mr. A. James Mayer, A. J. Mayer International; and Mr. Phillip C. Badger, General Bioenergy, Inc.



The Honorable Brian C. Griffin, SSEB’s Federal Representative, addresses the Board during the 2006 Annual Meeting.

Event Photos

2006-2007



Representative John Raymond Reeves of Mississippi comments on the Board's work to promote American Energy Security. Representative Reeves serves as a member of the Board's Executive Committee.

Governor Ernie Fletcher (right) of Kentucky commends Mr. Joe R. Hewlett, Assistant Superintendent of Lawrence County Schools in Kentucky, on the successful development of the Kentucky Junior Coal Academy. The Academy is a division of the Kentucky Coal Academy, both of which were founded to develop curricula and provide state-of-the-art training for high school and college students interested in coal industry careers.



Governor Fletcher presents Mr. Robert Addington with a special award during the Board meeting. The Board's *American Energy Security Study* is based on Mr. Addington's vision for the Nation's energy future. From left to right: Senator David Boswell, Kentucky; Mr. Robert Addington, The Addington Companies; Kentucky Governor Ernie Fletcher; Representative Rocky Adkins, Kentucky; and Senator John Watkins, Virginia.



Mr. Jimmy Skipper (left), Governor's Alternate from Georgia, looks on as Senator Jimmy Jeffress of Arkansas (right), who is a member of the SSEB Executive Committee, discusses the importance of "energy security" to the Nation.



Michael Karmis, Ph.D. (left), Virginia Governor's Alternate, and Representative Harry Geisinger (right), Georgia, participate in the American Energy Security discussion.



Senator John Watkins, Virginia, introduces the American Energy Security theme of the meeting. Senator Watkins serves as Vice Chairman of the Board.

Representative Myra Crownover, Texas, delivers the Board's financial report. Representative Crownover was elected Treasurer of the Board in 2005.



**U.S. VIRGIN ISLANDS
ENERGY STRATEGY DEVELOPMENT**
July 25, 2007 • St. Croix, U.S. Virgin Islands



U.S. Virgin Islands officials meet with the Southern States Energy Board to discuss energy strategy options for the Territory. Left to Right: Mr. C. Michael Smith, SSEB; The Honorable John P. deJongh, Governor, U.S. Virgin Islands; Mr. Bevan R. Smith, U.S. Virgin Islands Energy Office; and Mr. Kenneth J. Nemeth, SSEB.



American Energy Security

During its Annual Meeting in August 2005, the Southern States Energy Board unanimously approved an *American Energy Security Study*. The focus is on soaring energy prices, national energy security and shortages of liquid transportation fuels. The goal is to implement federal legislation that will address the fiscal, tax, legislative and regulatory reforms necessary to ensure stable, affordable, quality liquid transportation fuels for the American public.

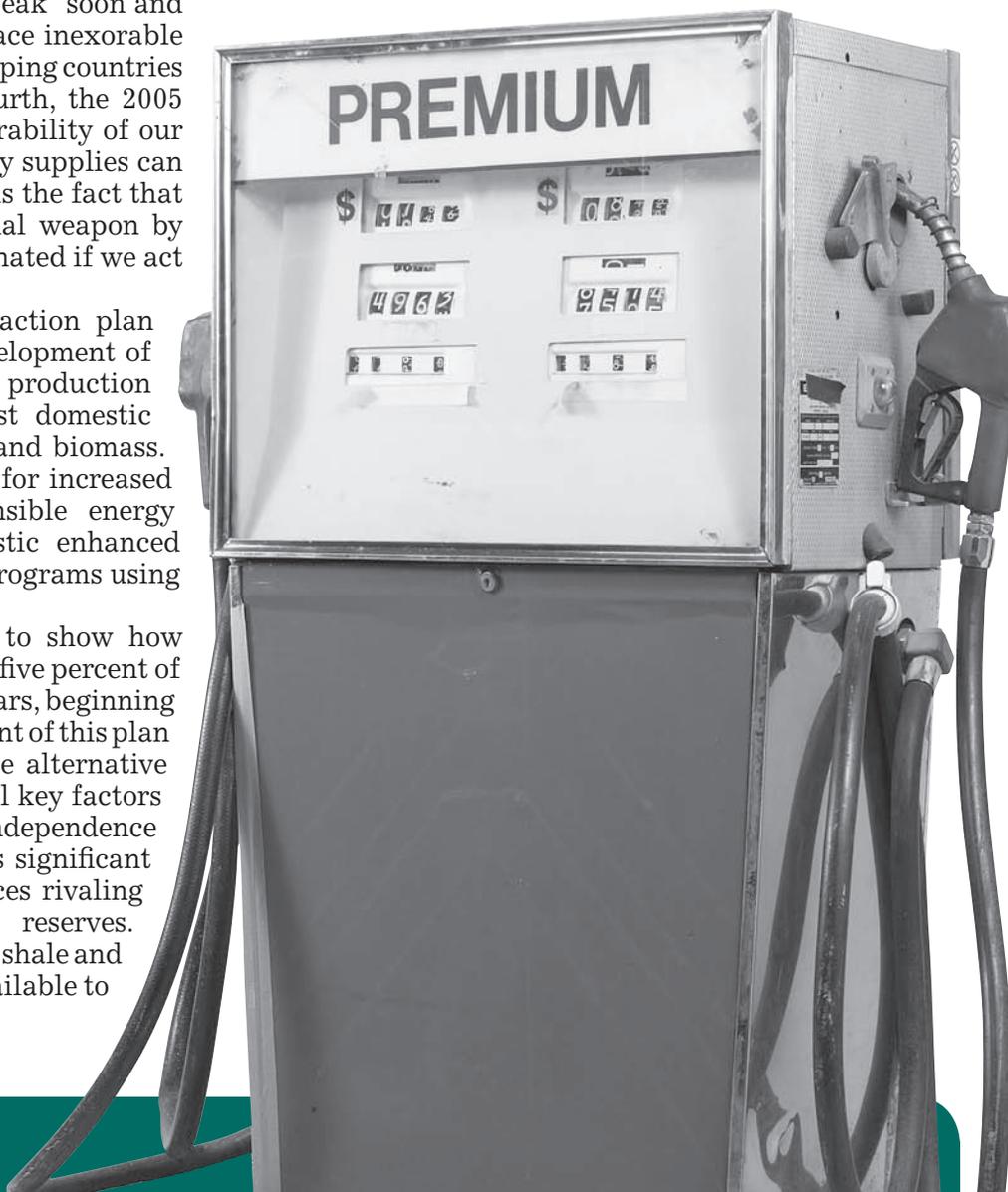
The Board unanimously agreed that the country does not face an “energy crisis”; it is apparent that a shortage of viable liquid transportation fuels is being exacerbated by four oil related risks to our economy. First, we face an expanding dependence on oil supplies delivered to us by unstable and unfriendly foreign countries. America consumes 22 million barrels of oil per day, and 67 percent of that total powers the transportation sector of our economy. Second, oil is a finite resource and many experts believe that supplies will “peak” soon and begin a steady decline. Third, we face inexorable competition for oil from huge, developing countries such as China and India. And fourth, the 2005 hurricanes demonstrated the vulnerability of our energy infrastructure and how easily supplies can be disrupted. Even more daunting is the fact that oil is being used as an international weapon by terrorists, a threat that can be eliminated if we act as a nation to do so.

The American Energy Security action plan and study centers on the rapid development of an alternative oil and liquid fuels production base in America utilizing our vast domestic resources including coal, oil shale and biomass. The plan also emphasizes the need for increased transportation fuel efficiency, sensible energy conservation and improved domestic enhanced oil and coalbed methane recovery programs using carbon dioxide.

One goal of the SSEB study is to show how America can replace approximately five percent of U.S. imported oil each year for 20 years, beginning in the next five years. A key component of this plan will be the construction of multiple alternative liquid fuel plants each year. Several key factors in this approach to energy independence include, first, the United States has significant quantities of alternative oil resources rivaling total worldwide conventional oil reserves. Trillions of tons of American coal, oil shale and renewable biomass resources are available to

be converted to premium quality liquid fuels using existing and rapidly emerging technologies.

Second, by producing environmentally superior transportation fuels from near-zero emissions plants that can recycle, utilize and sequester CO₂, the United States can be an example for the world, in particular the rapidly expanding energy production capabilities of China and India. Liquid fuels produced from coal, oil shale and biomass have very low sulfur, low particulate and NO_x emissions and higher performance characteristics than their conventional distillate counterparts. Third, the SSEB study focuses primarily on the rapid development of coal, oil shale and biomass-to-liquid fuels production. Commercial enhanced oil recovery successes using CO₂ flooding suggest that American oil and gas production can be dramatically increased using these methods. Miscible CO₂ flooding can revitalize certain mature oil fields. In addition, the study supports CO₂



American Energy Security

continued

injection into coal and oil shale deposits with an emerging technology that can increase natural gas production from these sources.

On April 16-18, 2007, Governor Joe Manchin hosted The American Energy Security Summit in Alexandria, Virginia. Sponsored by the Southern States Energy Board, the Summit brought together members of Congress, governors, state legislators, the U.S. military, the U.S. Department of Energy, the U.S. Environmental Protection Agency, business and industry chief executive officers, financiers, academia, new technology developers, media interests and private citizens.

A Zogby International poll of the American people, conducted for Southern States Energy Board on April 9-11, 2007, was the signature release of the initial Summit session, with some startling revelations. 95 percent of Americans responding to the poll believed that eliminating our dependence on imported oil should be one of the Nation's top five priorities. Rapidly expanding production of alternative fuels such as coal, biomass and oil shale and enhanced oil recovery was supported by 95 percent. When asked if the federal and state governments should take aggressive action to reduce investment risks to ensure the deployment of alternative fuels, 84 percent strongly agreed. The cost of gasoline and its effects on the 2008 presidential election also was posed. Seventy-six percent listed this issue as a key indicator of their voting preference for a candidate. When asked about the development of a "price support" mechanism to void predatory practices by foreign oil suppliers and speed alternative liquid fuels into the marketplace, 67 percent approved of this strategic security mechanism. Some of these questions have been construed as controversial, yet overwhelming support came from the Americans polled.

During the afternoon of April 16 at the Summit, a live, video teleconference linked our Alexandria,

Virginia, meeting with a Utah Energy Summit held in Salt Lake City and sponsored by NextGen Energy Council. This special event enabled Governors and eminent CEO's from industry to converse across the country on energy issues of mutual interest. While Governor Manchin and Governor Jon Huntsman of Utah chaired the cross country link, other participating Governors were Ted Strickland of Ohio; Dave Freudenthal of Wyoming; Brian Schweitzer of Montana; and Jim Gibbons of Nevada. Industry executives present were Paul Evanson of Allegheny Energy; Gregory Boyce and Fred Palmer of Peabody Energy; and J. Brett Harvey of CONSOL. The focus of this unprecedented session was on the use of our plentiful and available indigenous energy resources to develop transportation fuels that can lessen our dependence on imported oil. The discussions centered on coal, biomass, oil shale, renewables, carbon sequestration, transmission siting and transportation fuel efficiency and conservation.

Kentucky House Majority Leader Rocky Adkins briefed the delegates regarding the passage of House Bill 299 concerning the need for energy independence and the opportunity for coal-to-liquids and biobased alternative fuels. Representative Adkins also discussed the need to educate the coal mining workforce of the future and the establishment of the Kentucky Coal Academy to train the future mining industry. Rentech CEO, Hunt Ramsbottom, discussed the Company's plans for coal-to-liquids facilities in Illinois and Mississippi.

Carbon sequestration and enhanced oil recovery utilizing CO₂ were topics of American Electric Power CEO Mike Morris while Shell Vice President Terry O'Connor focused on oil shale to liquids technologies and opportunities.

Addresses by U.S. Senator Jim Bunning of Kentucky and Congressman Nick Rahall of West Virginia stated the need for federal policies to



accelerate energy security and each discussed specific legislation that would accomplish that goal.

FedEx Corporation Chairman and CEO Fred Smith highlighted the plight of business and industry in America and the risks that we face as a Nation from our continued reliance on imported oil.

William C. Anderson, Assistant Secretary of the Air Force discussed the vulnerability of the Nation and our military and the need for a battlefield use fuel of the future that could be made from indigenous energy resources.

Other major topics of the Summit included financing alternative fuel facilities; economic advantages of energy independence; mining mitigation and reforestation; and state-based leadership activities.

Energy security and the price of petroleum fuel supplies have been a dominant theme in the news over the past year. Rising prices of oil above \$70 per barrel have given priority to a number of legislative calls for alternative methods of reducing the Nation's dependence on foreign oil supplies and drastically increasing the use of our domestic resources by providing petroleum substitutes for transportation fuel. The President, in his State of the Union address, called for the United States to drastically reduce its dependence on foreign oil, particularly from the Middle East. With imports of over 12 million barrels of foreign oil per day, the United States is economically vulnerable to the price and quantity of oil available.

Congressional legislation will be needed to implement the recommendations of the *American Energy Security Study* and discussions are underway with members of Congress to address these strategies. The following measures are target issues which continue to be debated.

Extend the \$0.50 Per Gallon Alternative Liquid Fuels Excise Tax Credit

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, SAFETEA-LU 2005 extension, provides a \$0.50 per gallon excise tax credit for certain alternative liquid fuels, including coal-to-liquids products. This incentive is set to expire in 2009, before any major new coal-to-liquids and oil shale plants, for example, can come online. Its extension through 2020 and the inclusion of oil shale products

will provide "real" market incentive to future alternative liquid fuel plant developers.

Provide Accelerated Cost Recovery to Alternative Fuel Plant Owners

Authorization for 100 percent expensing in the year of outlay for any alternative liquid fuel plants begun by 2020 is recommended. This will provide a substantial tax incentive to build alternative fuels manufacturing capacity, with the government recapturing the deferred taxes in the early years of a plant's operation.

Incentivize Refining of Alternative Liquid Fuels

We recommend the extension of the now temporary expensing allowance for equipment used in refining to 100 percent of any required additions to existing refineries needed to handle domestic alternative liquid fuels products (see EPAAct2005, § 1323). This incentive will redirect refinery owners to domestic and away from imported feedstock sources.

Provide Explicit DOE Authority and Appropriations for Loan Guarantees

The Energy Policy Act of 2005 establishes a loan guarantee program within DOE. However, the DOE view is that the Federal Credit Reform Act of 1990 contains a requirement preventing the DOE from issuing any loan guarantees until they have an authorization, including a loan volume limitation, in an appropriations bill. It is recommended that Congress provide explicit authorization in the form of a federal loan facility to support the first approximately 100,000 barrels per day of new commercial production capacity (ten 10,000 barrels per day plants +/-) for coal, biomass and oil shale-to-liquids facilities. Also, Congress should provide appropriations for technologies demonstration, as provided in the Energy Policy Act of 2005.

Fund the Military Alternative Fuels Testing and Development Program

The U.S. Department of Defense (DoD) has a development program underway to evaluate, demonstrate and certify turbine fuels from

alternative energy resources for use in tactical vehicles, aircraft and ships. Fuel sources include Fischer-Tropsch (F-T) fuels made from domestic coal, refined fuels derived from oil shale kerogen and renewable/bio-based fuels. The ultimate goal is to develop a single Battlefield Use Fuel of the Future (BUFF). At the center of this development effort is a DoD fuel testing program. We encourage Congress to fully fund this critical program through FY2013. The military need is approximately \$500 million over a five to six year period, beginning in 2007.

Authorize and Fund Military Purchases of Alternative Fuels Under Long-term Contract

Total oil consumption by U.S. military forces is approximately 400 thousand barrels per day. Through the development of BUFF specifications, it is believed that a substantial portion of this requirement can be met with domestically produced alternative liquid fuels. The DoD desires to enter into long-term contracts for the purchase of alternative fuels made in the United States from domestic resources. This is part of DoD's Total Energy Development (TED) Program, with a stated mission to "catalyze industry development and investment in [alternative] energy resources." Congressional support is encouraged for DoD's TED program, including extending its long-term contracting capabilities from five to as long as 25 years. Appropriate and necessary authorizations and funding should be given high priority. DoD fuels purchases under long-term contract can help establish a foundation on which to build a new alternative fuels industry. And secure, high quality U.S. made alternative liquid fuels will help our military.

Eliminate The \$10 Million Cap for Tax Exempt Industrial Development Bonds

Certain pollution control and solid waste disposal facilities currently are not included in the \$10 million limit on tax exempt Industrial Development Bonds (IDB) which encourage investment. It is recommended that alternative liquid fuels production facilities be added to this list of activities having no tax exempt IDB size limits. This will lower the cost of capital to build new alternative liquid fuels processing projects and enable expansion of existing ethanol and biodiesel plants.

Provide Regulatory Streamlining for the Production of Alternative Liquid Fuels

In order to facilitate the rapid scale-up of alternative liquid fuels production capabilities in the United States, regulatory changes are necessary. Standardizing, simplifying and expediting the permitting process for manufacturing/processing facilities, mines, agricultural operations and necessary infrastructure is crucial. The "not in my back yard" mentality, often accompanied by costly, time consuming litigation and anti-commercial environmentalist obstructionism, needs to be countered with legislation and leadership. Below are a few recommendations in this very important area.

- Standardize, simplify and expedite permitting and siting with joint federal, state and local processes, policies and initiatives.
- Make appropriate federal, state and local government sites available for alternative liquid fuels manufacture, including base realignment and closure of military sites.
- Exempt initial alternative liquid fuels processing facilities from New Source Review and National Ambient Air Quality Standards offset requirements.
- Encourage local leadership to modify approaches to zoning and other land use and business regulations, to accommodate the strategically important new activities of alternative energy harvest and manufacture.
- Prioritize, expand and promote the impressive reforestation work being done to dramatically accelerate the rate of tree growth by creating optimal soil conditions at reclaimed mine sites.

Establish a Self-sustaining Government Corporation to Provide Market Risk Insurance

Congress is encouraged to establish the Strategic Energy Security Corporation (SESC), a self-funding, self-sustaining government corporation. The SESC is proposed to administer a new, "fuel-neutral," alternative liquid fuels market insurance program to protect against predatory pricing by OPEC and others. More details on the SESC initiative are provided in the *American Energy Security Study*.

Expand the Strategic Petroleum Reserve (SPR) Program to Include Alternative Liquid Fuels Products

Stockpiling crude oil in a centralized location has its limitations. Crude oil needs to be refined to be useful. The logistics of moving SPR crude to refineries having available capacity, and then transporting the refined products to locations in need, is cumbersome and takes time (time being of the essence in a crisis). There are only four centrally located SPR storage sites in the United States; two in Texas and two in Louisiana. All four sites are centrally situated on the hurricane-prone Gulf Coast, making them vulnerable to natural disaster and also to enemy attack.

Congress should examine the feasibility of purchasing and storing “finished” alternative fuel products such as diesel fuel, jet fuel, heating oil and ethanol at a number of locations strategically dispersed throughout the United States, as an extension of the SPR program. Fischer-Tropsch wax produced from coal, biomass and perhaps even oil shale may be an ideal product for this purpose. The F-T process is capable of making a biodegradable wax as an alternative to producing diesel and jet fuels. This wax has a very long shelf life, and can be upgraded to superior quality fuels much more quickly and inexpensively than crude oil. In general, a variety of alternative fuels could be purchased by the SPR under long-term contract to control costs and to help establish a vibrant, rapidly expanding alternative fuels industry.

Congress should authorize the sale of portions of the crude oil currently in storage on the open market to fund available alternative fuels purchases.

Provide Incentives for Existing Ethanol Plants to Convert to Coal

Until very recently, the ethanol plant fuel source of choice for processing heat and electricity was natural gas. With the recent run-up in natural gas prices, new ethanol plants are opting for coal firing. Like crude oil, limited domestic natural gas supplies have necessitated increasing imports of this fuel as LNG to produce ethanol. To promote energy efficiency and lower energy imports, we recommend providing for 100 percent expensing in the year of outlay for the cost of converting ethanol plants currently using natural gas to domestic coal, if the new plant is in service by 2010.

Provide Incentives for Enhanced Oil Recovery and Enhanced Coalbed Methane Recovery Using CO₂ Captured From Alternative Fuel Plants

The capture and use of the CO₂ from alternative liquid fuel plants can greatly expand domestic oil production from existing oil fields and enhance methane recovery from coalbed methane operations. To lower the barriers to expanded use of CO₂ injection we recommend:

- Excluding oil production from the Alternative Minimum Tax;
- Increasing the investment tax credit to 50 percent;
- Providing federal royalty and severance relief until the investment in CO₂ injection is recovered; and
- Providing access to federal and state lands for construction of CO₂ pipelines.

Additional Recommendations

Issues and policy options related to the prioritization and catalyzing of a new domestic alternative liquid fuels industry are extremely complex and important. The policy recommendations provided in this Annual Report are believed to be keys to the success of a comprehensive national initiative for alternative fuels harvesting and manufacturing. The *American Energy Security Study* of the Southern States Energy Board has developed additional policy options for states.



Carbon Management

Southeast Regional Carbon Sequestration Partnership (SECARB)

On February 2, 2007, the Intergovernmental Panel on Climate Change, whose membership is comprised of hundreds of scientists from 113 countries, stated that, based on new research over the last six years, it is 90 percent certain that human-generated greenhouse gases account for most of the global rise in temperatures over the past half-century.

The work that is being conducted by the Southeast Regional Carbon Sequestration Partnership will help define the role for clean coal in a carbon constrained world. While many of our Nation's leaders are working hard to ensure that coal continues to contribute to this Nation's economic growth and homeland security, it is evident that carbon capture and sequestration have a dominant role in that future.

SECARB was established by the Southern States Energy Board in 2003 with the primary goal of identifying major sources of carbon emissions, characterizing the geology of a 13-state region and determining the most promising options for commercial deployment of carbon sequestration technologies in the South. The Partnership is comprised of more than 100 active industry, government, academic and non-profit partners. SECARB is one of seven regional partnerships nationwide; all of which currently are in the second phase of a three phase program.

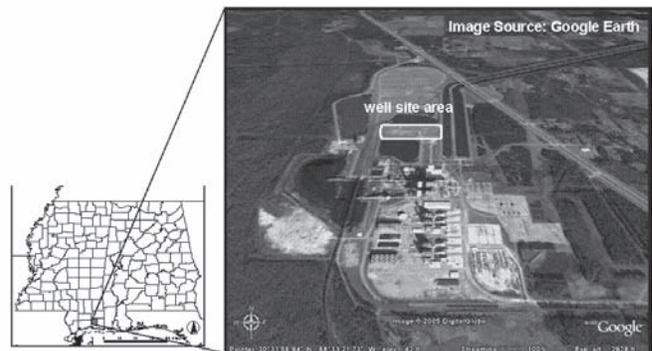
The four-year SECARB Phase II program consists of three diverse field tests in four locations broken down into tasks aligned with project definition, design, implementation, operations and closeout/reporting; Continued Characterization of Regional Sequestration Opportunities; Cross-cutting services in Education and Outreach, Regulatory and Permitting; Monitoring, Measurement and Verification (MMV); Geographical Information Systems (GIS); and Project Management. SECARB will develop best practices manuals to support regional transferability and wide scale deployment. Cross-cutting services are provided by Mississippi State University's Institute of Clean Energy Technology (MMV), Augusta Systems International (Regulatory and Permitting), the Electric Power Research Institute in cooperation with the Massachusetts Institute of Technology (GIS) and the Southern States Energy Board (Project Management and Education and

Outreach). Denbury Resources Inc. is supplying the carbon dioxide for field testing in three field locations.

Saline Reservoir Field Test: The Mississippi Test Site

The purpose of the Mississippi Test Site project is to examine deep saline reservoirs located near large coal-fired power plants along the Mississippi Gulf Coast for geological storage of CO₂. In this area, the Massive Sand Unit of the Lower Tuscaloosa Formation has been identified as a high capacity CO₂ storage option. Mississippi Power Company's Victor J. Daniel Power Plant, located near Escatawpa, Mississippi, is the site for this field test. The project team is led by the Electric Power Research Institute and Southern Company.

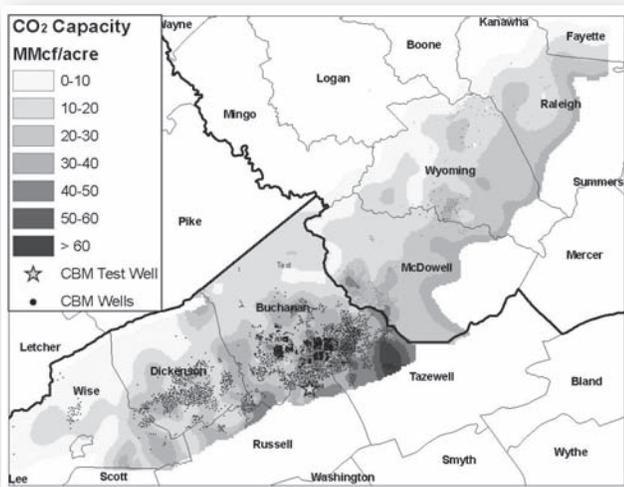
To assure a safe, secure and publicly accepted field test, the Mississippi Test Site project is in the process of building the essential foundation of technical knowledge for full-scale implementation. This includes: constructing geological and reservoir maps to further assess the site; conducting reservoir simulations to estimate CO₂ injection rates, storage capacity and the long-term fate of injected CO₂; addressing state/local regulatory regimes for permitting this site; fostering public education and outreach to build acceptance; injecting up to 3,000 tons of CO₂; and conducting base-line and long-term monitoring to establish the security of the CO₂ plume.



Mississippi Power Company's Victor J. Daniel Power Plant is the site of the SECARB Saline Reservoir Field Test/The Mississippi Test Site.

Coal Seam Project: Central Appalachian Basin

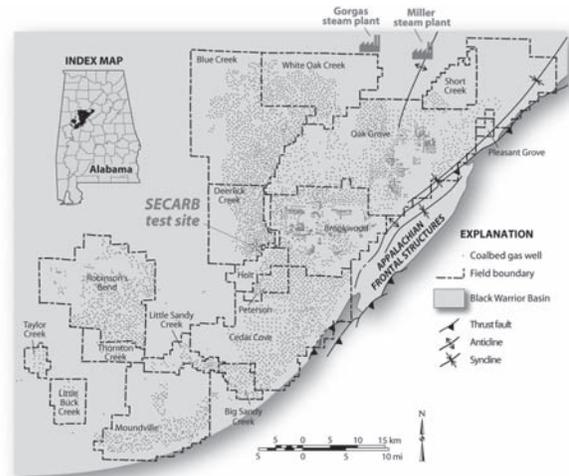
The objectives of the Coal Seam Project in the Central Appalachian Basin are to assess the sequestration potential of coalbed methane reservoirs as geologic sinks and to verify the sequestration capacity and performance of mature CBM reservoirs in the Central Appalachian Basin through injection-falloff and production testing, as well as the implementation of subsurface monitoring programs. These tests will demonstrate potential geologic sequestration into Appalachian coals as a safe and permanent method to mitigate greenhouse gas emissions. The objectives of the project are directly related to the following tasks: expanded geologic characterization; pilot site selection; reservoir modeling; corehole drilling and evaluation; pilot preparation and risk analysis; pilot testing and injection operations; data interpretation and assessment; and public outreach and technology transfer. A CBM well in Russell County, Virginia, has been donated by CNX Gas and selected by the SECARB team for the field validation test. The team is led by the Virginia Center for Coal and Energy Research at Virginia Tech.



CNX Gas is providing the host site for the SECARB Coal Seam Project in the Central Appalachian Basin. The well is located in Russell County, Virginia.

Coal Seam Project: Black Warrior Basin

The principal objectives of the SECARB Black Warrior coal test are to determine if sequestration of carbon dioxide in mature coalbed methane reservoirs is a safe and effective method to mitigate greenhouse gas emissions; and to determine if sufficient injectivity exists to efficiently drive CO₂-enhanced coalbed methane recovery. Coalbed methane is produced from multiple thin coal seams (0.3 to 2.0 meters) distributed through more than 300 meters of section in the Black Warrior basin. Coal is an extremely stress-sensitive rock type, and permeability can decrease by as much as four orders of magnitude from the surface to depths as shallow as 700 meters. Coal, moreover, is an extremely heterogeneous reservoir, and permeability can vary by more than an order of magnitude at a given depth. Accordingly, procedures and technologies need to be developed to manage reservoirs with properties that vary greatly from seam to seam. This field test is intended to be the first step in this process. An existing Dominion CBM well has been selected in Deerlick Creek Field near Tuscaloosa, Alabama, for the test site, and pre-injection monitoring activities are in progress. The Geological Survey of Alabama leads this effort with Southern Company providing monitoring support.



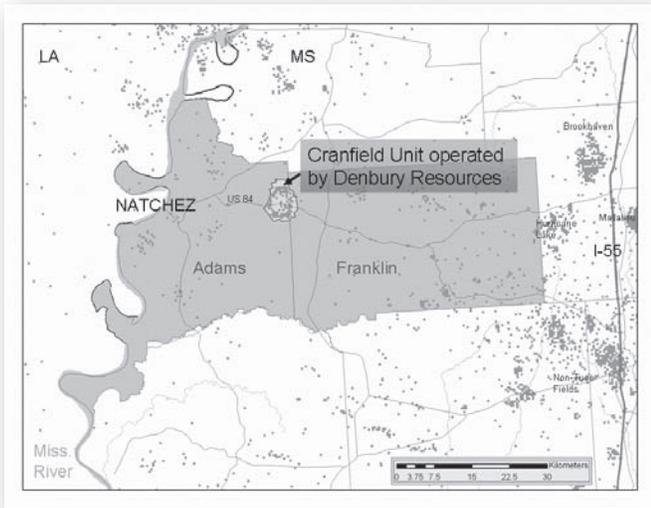
SECARB's Black Warrior Basin Coal Seam Project will be conducted at an existing well site owned by Dominion and located near Tuscaloosa, Alabama.

Carbon Management

continued

Gulf Coast Stacked Storage Project

The Gulf Coast Stacked Storage Project will demonstrate the concept of phased use of subsurface volumes, combining early use of CO₂ for enhanced oil recovery with later injection into underlying or adjacent brine formations. The benefits of this phased development are short-term, large-volume injection with immediate commercial benefit to support research and infrastructure development followed by use of underlying or adjacent brine-bearing formations for large-volume, long-term storage. The Cranfield Oil Field in Southwest Mississippi has been selected for this test, and Denbury Resources is providing the host site. The Gulf Coast Carbon Center at The University of Texas at Austin leads this project.



The site of SECARB's Gulf Coast Stacked Storage Project is near Natchez, Mississippi, and located in the Cranfield Oil Field owned by Denbury Resources Inc.

FutureGen

All four SECARB field test sites, the continued characterization project and the cross-cutting functions complement the FutureGen Initiative by validating technologies and identifying locations throughout the region that could support future full-scale geologic sequestration deployment opportunities. FutureGen is a highly efficient and technologically sophisticated coal-fired power plant that will produce both hydrogen and

electricity and achieve near-zero emissions by utilizing carbon sequestration technologies.

On July 25, 2006, the FutureGen Alliance announced its short list of candidate sites to host the \$1 billion research facility. Two sites in Texas, near Jewett and in Odessa, were among the four sites on the Alliance short list. These locations were selected from 12 competing sites in seven states from across the Nation. The final selection is expected later this year, and the plant is scheduled to be online in the year 2012.



Coal & Advanced Power Systems



The Southern States Energy Board's Committee on Clean Coal and Energy Technologies Collaboration is one of the Board's most active government/industry partnerships. Comprised of state, federal, academic, business and industry officials, the Committee pursues domestic and international programs that emphasize the critical role of coal as a major part of the world's energy mix. The Committee promotes innovative technologies that power cleaner fossil fuel systems and promote environmental quality such as integrated gas combined cycle plants and carbon sequestration.

During the past year, the Committee's domestic agenda has focused on the region's mining workforce and the new curricula and workforce programs necessary to sustain the industry throughout the region in the future. The importance of coal as a resource for the southern region is apparent. For every million tons of coal produced, 130 miners are employed. Millions of dollars in severance taxes are generated across the South, and the region supports some of the lowest electric rates in the Nation. Coal industry based infrastructure provides a strategic advantage to the economies of southern states by spawning additional businesses that diversify and improve the quality of life while offering competitive employment.

However, our coal industry workforce is aging. The average miner has reached 50 years of age and more than half of the workforce will face retirement in the next five to seven years. Lack of education and training programs and no career path incentive for new miners has placed the human resources component of the industry at a precarious crossroads. But today, changes are being made to modernize facilities and equipment and to entice younger workers to enter a new mining industry that is intent on providing them incentives to careers with a future.

The Commonwealth of Kentucky met this challenge during 2006 through the creation of the Kentucky Coal Academy. A model program worthy of adaptation by states across the country, the Coal Academy designs career pathways for miners with state-of-the-art equipment; develops short-term training; assesses employer needs; provides scholarships to deserving students; offers academic curricula leading to college and advanced degrees; and provides marketable and transferable skills to its students through the Kentucky Community and Technical College System. As one of its components, the Kentucky Junior Coal Academy

program is educating high school students in their potential roles in a new U.S. coal industry. Former SSEB Governor's Alternate, Dr. Bill Higginbotham, serves as the President of the Academy.



In November 2006, Mr. Daniel Howard, a high school student in the Lawrence County School System, delivered a speech on the importance of the Kentucky Junior Coal Academy before several leaders of the educational community, state government, state legislature and his peers. Mr. Howard is looking forward to a promising career in the coal industry. Following this event, Mr. Howard was awarded the Diedrich Trust scholarship, which will provide him a full scholarship to the doctoral level. He has been elected State Vice President of the Future Farmers of America.

The Sago Mine disaster during 2006 and other similar incidents have redoubled efforts to improve safety measures so that tragedies such as these cannot occur in the future. A number of states, including West Virginia and Kentucky, have taken legislative action to provide tracking and communication devices for miners; increased evacuation training; employed new mine rescue teams; installed lifeline cables for escape; and increased training on the use of self rescuers, among other safety measures. The Kentucky Coal Academy currently is examining the use of

Coal & Advanced Power Systems

continued

strategically placed mine rescue teams throughout the Commonwealth.

Of increasing interest to SSEB's Committee on Clean Coal and Energy Technologies Collaboration is the role of state regulators in the planning, siting, permitting and development of new coal power plants in the southern region. Regulatory decisions and actions are impacting the design of power plants from Florida to Texas with efforts focused on the elimination of greenhouse gases and carbon sequestration. In a cooperative effort with the Gasification Technologies

Council, the Southern States Energy Board co-sponsors two workshops each year for state regulators, seeking to provide an education-based examination of clean coal technologies and their reduced greenhouse gas impacts and "carbon footprint."

The advent of new, clean energy technologies and their implementation throughout the country continues as a key concern of the Committee. Southern Company Services of Birmingham, Alabama, is developing an air-blown Integrated Gasification Combined Cycle power facility demonstration project using a coal-based transport gasifier.

The transport gasifier concept has been successfully used in the petroleum refinery industry for over 50 years and maintains a fuel-flexible design with higher efficiency and lower capital and operating costs than currently utilized oxygen-blown, entrained-flow gasifiers. The 285 megawatt electrical plant currently is under construction in Orange County, Florida.

The SSEB Committee on Clean Coal and Energy Collaboration also is leading a discussion of the domestic policies and technologies needed to begin the development of an alternative oil production industry in the



southern states. Major industries in the region are disadvantaged by high fuel and feedstock prices including airlines, package and food delivery, trucking, auto manufacturing and petrochemicals, among others. To survive, many American companies are building new plants offshore, along with the supporting research and development facilities, causing the loss of jobs, intellectual property and tax base. In order to reverse this trend, business and industries must be offered a long-term solution. These unprecedented risks can be mitigated if a commitment is made to utilize indigenous energy resources as liquid transportation fuels.

The international activities of the Committee are conducted in cooperation with the U.S. Department of Energy's Office of Clean Energy Collaboration. This cooperative partnership examines opportunities to export coal and clean coal technologies to developing countries in cooperation with U.S. companies interested in international business. In 2002, the Southern States Energy Board and the Industrial Estate Authority of Thailand signed a Memorandum of Agreement to explore measures to improve and enhance the economic and environmental performance of Thai industrial estates. This has led to trade missions and reverse trade missions, visits to industrial estates, cooperative ventures between U.S. and Thai partners, international conferences and workshops and eco-industrial development proposals to turn waste streams into productive resources, providing solutions to environmental damage and stimulating markets for new products. The goal is the continued involvement of southern U.S. manufacturing and service industries in finding solutions to industrial problems through international business.

During 2007, the Committee met with the Industrial Estate Authority of Thailand and numerous industries in the Kingdom that are interested in business opportunities with U.S. firms. The goal is a joint workshop to be held in the Fall of the year in Thailand. This follows a trade mission by the Thai Federation of Industry to the United States in May 2006, with the Southern States Energy Board serving as host for the week-long site visits and discussions. A framework was established for a major clean coal/advanced energy symposium to be conducted in Thailand during 2007. Representatives from the Thai Department of Energy Development

and Efficiency have expressed their interest in a bilateral instrument with the Southern States Energy Board to promote clean coal technologies in selected manufacturing sectors in Thailand.

The General Environmental Conservation Company (GENCO) of Thailand provides waste management services to industrial firms in the Kingdom. GENCO has identified gasification as one of a number of process technologies to produce electricity and other products to eliminate its current base of wastes collected from firms at its industrial estates. In cooperation with the Southern States Energy Board, GENCO plans to conduct a feasibility study to explore the option of co-firing coal with municipal and industrial wastes to produce energy and useful commodities. SSEB's goal is to identify and work with motivated American firms desiring to participate in the project and supply equipment and services.

Through the International Working Party on Fossil Fuels of the World Energy Council and the International Energy Agency, the Southern States Energy Board examined the intellectual property issues associated with the deployment of carbon sequestration technologies during the past year. This has provided direct benefit to the international Carbon Sequestration Leadership Forum as the 22 countries involved in the Forum seek to determine ways to share carbon capture, storage, utilization and disposal technologies to curb the release of greenhouse gases into the atmosphere. Barbara McKee of the U.S. Department of Energy chairs the International Working Party on Fossil Fuels and is a member of SSEB's Committee on Clean Coal and Energy Technologies Collaboration.



Economic circumstances and development goals vary among southern states. Meanwhile, rural economies across the South suffer from slowed production and a decrease in the value of farm crops. At the same time, our country's demand for energy and increased dependency on foreign energy sources is jeopardizing our economic security. The South has 214 million acres of forest land, primarily owned by private landowners, and over one-third of America's farmland. Our region has potential for renewable, expandable and sustainable sources of energy as well as chemical feedstocks.

Southern States Biobased Alliance

Formed in July 2001, the Southern States Biobased Alliance works in an advisory capacity to the Southern States Energy Board, addressing the development of biobased products and bioenergy within the southern region. The Alliance has developed a formal mission to provide leadership and develop strategies that will foster a biobased industry and boost rural economies in the southern states. The Alliance members are gubernatorial appointees who are state legislators of SSEB member states and representatives of the public or private sector who are active in energy, environment, agriculture and forestry issues.

Upon its inception, the Alliance established goals to guide the group in building public/private partnerships that advance the economy of the region through unique state, local and industry networks. These goals provide regional leadership to the Southern States Energy Board and its member states through:

- Alliance meetings and activities that foster communication, coordination and collaboration among members to enhance development of a biobased industry in the region.
- Recommendation of policies and programs that foster development of a biobased industry in the region.
- Identification of strategies that stimulate markets for biobased products and technologies.
- Electronic access to information, public forums and appropriate links to facilitate information transfer on biobased products and bioenergy.
- Advanced research, development and demonstration of biobased technologies and by promoting the use of those technologies.

Key activities are focused on stimulating markets for biobased products and bioenergy. Learning about policies and incentives in other states, in the South and in other regions, is integral to determining the proper

approaches that will stimulate economic development.

Southeastern State/Regional Biomass Partnership

The regional biomass energy program was created by Congress in 1983 under the Energy and Water Development Appropriations bills PL 97-88 and PL 98-50. The enabling legislation instructed the U.S. Department of Energy to design its national program to work with states on a regional basis, taking into account regional biomass resources and energy needs. DOE's regional biomass energy program was revamped in 2003 and identified as the National Biomass (State/Regional) Partnership (NBP). The NBP is a union of five long-standing regional biomass energy programs, and the Southern States Energy Board is the host organization for the Southeast. The five regional programs, working with representatives in all 50 states, Puerto Rico, the U.S. Virgin Islands and the District of Columbia are recognized nationally for their combined experience related to biomass technologies, policies and research.

The goal of the Partnership is to work cooperatively with the DOE's Office of Biomass Program to facilitate the increased use of bioenergy and biobased products through coordinated federal, regional and state outreach, education and technical assistance programs. In support of this goal, the Southern States Energy Board has participated in the planning and support of the Southeast Bioenergy Conference spearheaded by the University of Georgia and held on the Tifton campus. Governor Sonny Perdue opened the conference which was focused on opportunities and issues related to bioenergy distinctly relevant to the Southeast. National political leaders engaged in a dialogue through a video conference to provide their views on current and pending federal legislation that will enhance the growth of the bioenergy industry in the South, contribute to a better environment, support advanced research and development of cellulosic ethanol and other biomass feedstocks and boost rural economies.

In addition to moderating the federal legislative update discussion, Georgia Senator Ross Tolleson led a state roundtable dialogue on what states in the region are doing to encourage the growth of renewable energy. SSEB staff moderated a panel of state officials discussing the advances in the region to promote bioenergy. Seminar sessions ranged from how to build a bioenergy business to the latest information on renewable energy.

Similar to all the regional partnerships, the Southeastern Biomass State/Regional Partnership

is structured to provide state and regional grants to accomplish specific goals related to education, outreach and technical assistance. The Southeastern Partnership includes Alabama, Arkansas, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Missouri, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, U.S. Virgin Islands, Virginia and West Virginia.

In support of the goals of the National Biomass State/Regional Partnership, a technology matrix has been prepared for the national Partnership and states. Listings of the following areas are part of the matrix:

- major types of biomass feedstocks;
- potential energy end-use and applications;
- potential biofuel products; and
- biomass conversion technologies that are commercially available.

The technology matrix will allow users to conduct preliminary match of end-use applications and biomass feedstocks with specific characteristics to appropriate conversion technologies. Ultimately, this will increase bioenergy development intensity.

The program continued during the year to provide technical and other assistance to bioenergy users and potential bioenergy users. In addition, staff provided assistance in the drafting of state legislation and development of state energy policies and plans. The following projects are being conducted in 2007.

Alabama is developing a liquid biofuels plan that will increase the awareness and knowledge base of state policy-makers and serve as a guide for future state investment in the development of the biofuels industry in Alabama.

Arkansas is organizing and conducting a workshop on energy and value-added products as it relates to biomass utilization in the state and the region.

Florida is creating a portfolio of resource maps and identifying installed and potential biomass energy production capacity in the state. Additionally, the Florida Energy Office seeks to create a Florida Biomass Network that will assist with strategic planning for its biomass program and provide advice on specific projects in the state.

Georgia is forming a Biomass Task Force that will “assess the state of the industry” including research, development and demonstration as well as commercialization efforts to develop a strategic “roadmap” for future development in the state.

Kentucky is working with County Extension agents in a process that will result in the location,

development and distribution of decision aids to allow their clientele to reduce energy consumption, consider alternative energy sources and receive guidance on grant applications.

Louisiana is documenting biomass use and potential energy in the state for stakeholders who share an interest in developing efficient energy systems for the economies of Louisiana.

Missouri is investigating the procurement and marketing strategies that industries based on crop residue and energy crops can utilize with a focus that will provide a unique perspective that may be applied to all bio-processors of new agricultural biomass products and technologies.

North Carolina will facilitate permanent establishment of the North Carolina Biomass Council to provide consultation to the North Carolina Energy Policy Council, the State Energy Office and the North Carolina General Assembly on implementation of bioenergy studies and demonstration projects through the establishment of a biomass deployment roadmap for the state.

Puerto Rico is developing market data on availability, quality and cost of biomass solid waste feedstock, determining Puerto Rican market applications, conducting engineering analysis for scale-up and for economic feasibility of various biomass energy technologies and building an information base on feedstock versatility, with the objective of reserving a percentage of electric power generation and diesel fuel consumption for electricity and biodiesel produced from local applications.

South Carolina is providing public and private sector decision-makers with economic and environmental metrics needed to foster production of energy in South Carolina from waste water sewage, poultry waste and waste grease.

Tennessee is analyzing economic benefits of reducing petroleum imports and moving to a more biobased fuel system to help Tennesseans understand how biofuels have a positive impact on the state.

U.S. Virgin Islands is assessing the feasibility of collection and cleaning of landfill biogas to insure the greatest possible use of available biogas resources in the territory.

Virginia will conduct workshops that will increase awareness and understanding of small-scale biodiesel production as well as the opportunities, hazards and considerations of using biodiesel.

West Virginia is developing a conceptual biorefinery and configurations to lay a foundation for detailed economic analysis of the feasibility of a biorefinery in the state.

Water for Energy

“...Oh Blackwater, keep on rolling, Mississippi moon won't you keep on shining on me...” The Doobie Brothers sing in the background as the scenario plays out through two days in April 2007. Water, energy and emergency management professionals came together to explore responses each sector should make in times of crisis as energy facilities are impacted by weather events, leading to interruption of energy supply to water and waste water treatment facilities and other infrastructure impacts. Some 90 representatives of electric and gas utilities; water and watershed management; state energy, environmental and emergency response officials; the U.S. Army Corps of Engineers; Federal Emergency Management Agency; and national water management associations met to review best practices and explore solutions to a scenario that included a series of tornadoes that moved through the city of Decatur, Georgia, up through the Atlanta region over a 24 hour period. Representatives from 12 SSEB states participated in the event.

The highly interactive tabletop exercise, sponsored by the Southern States Energy Board in conjunction with the U.S. Department of Energy's National Energy Technology Laboratory and U.S. Environmental Protection Agency, included presentations on the basics of the electricity supply system, water and waste water systems

and emergency local and state energy assurance guidelines. Participants were briefed on the issues and challenges faced by agencies and private organizations during response and coordination efforts. How does the electric utility respond to a tornado watch at 3:00 a.m.? When do backup generators go online at the water utility? What priority do hospitals have as electricity and water supplies are restored following a significant storm event? How do the electric, gas and water utilities maintain coordination in the midst of chaotic events of the weather disaster? Blackwater Exercise helped its participants explore these issues in great detail, resulting in a better coordinated, better prepared response team ready to react when the next weather event occurs.

Participants were briefed on the issues and challenges faced by local, state and federal agencies and private organizations during response and coordination efforts. Geographical information was presented in map form which included water and wastewater treatment plants in the Southeast; key pipelines from the Gulf of Mexico through the mid-Atlantic; and the electric infrastructure, including major generating facilities and voltage lines. This information was key to the interactive process of the tabletop exercise in helping participants visualize the impacts of the weather events.



Environmental Technology Development, Deployment and Training



The Southern States Energy Board, as a founding member of the Interstate Technology and Regulatory Council (ITRC) in 1995, continues to promote the various components of the ITRC program and ensure that SSEB member groups, such as state regulators, are taking advantage of the low-cost, first-rate training and documents offered by ITRC. The ITRC now has over 80 documents available for use at no charge to regulators, technology experts and vendors, academicians and others. The most recent releases include three guidance documents entitled *Protocol for Use of Five Passive Samplers to Sample for a Variety of Contaminants in Groundwater* (February 2007), *Vapor Intrusion Pathway: A Practical Guideline* (January 2007) and *Vapor Intrusion Pathway: Investigative Approaches for Typical Scenarios (a supplement to VI-1)* (January 2007).

Currently, 13 teams of experts are working on specific environmental remediation issues to help to ease the transition from technological solution to practical implementation throughout the states. Some of the most recent topics taken on by ITRC teams include perchlorate in groundwater and enhanced attenuation using chlorinated organics, methyl and vapor intrusion.

ITRC consists of representatives from 48

states that work to eliminate barriers and reduce compliance costs, making it easier to use new technologies and helping states maximize resources. The ITRC fosters better decision-making within state environmental agencies and enhances the understanding of these technologies both within public communities and the environmental industry through free or low-cost informational and training resources. Environmental topics of interest nationwide are addressed by teams of experts formed and supported through the ITRC support system. These teams develop state-of-the-art regulatory guidance documents, training sessions and other technical publications aimed at various segments of the public, private and regulatory sectors. Currently, training is conducted in over 30 topics either as internet-based training or in classroom settings.

ITRC continues to build the environmental community's ability to expedite quality decision-making while protecting human health and the environment. Globally, over 30,000 participants worldwide have been trained using ITRC developed training. As the ITRC network continues to grow, knowledge is enhanced thereby easing implementation of environmental remediation activity throughout the Nation.



Radioactive Materials: Emergency Response & Transportation Planning

High-level Radioactive Waste Transportation

The Southern States Energy Board's Radioactive Materials Transportation Committee continues to give SSEB member states a voice by providing the U.S. Department of Energy with a southern states' perspective on policy related to nuclear power and transportation regarding the Nation's spent fuel and high-level radioactive waste. Furthermore, the Committee, whose membership includes regional, gubernatorially-appointed state emergency response planners, radiological health professionals and other state agency officials, is engaged with DOE's Office of Civilian Radioactive Waste Management to address specific issues relevant to the development of the first federally designated repository for spent fuel and high-level radioactive waste, known as Yucca Mountain, located approximately 100 miles north of Las Vegas, Nevada. In April of 2007, the Committee toured the Yucca Mountain facility to view the progress that has been made in recent years.

The Committee has provided additional opportunities for state involvement through its ongoing participation in the DOE Technical External Coordination Working Group meetings, which are designed to facilitate dialogue between DOE and interested parties regarding radioactive waste transportation. Through this endeavor, SSEB staff, as well as representatives from the states of Alabama, Arkansas, Florida, Louisiana, North Carolina, South Carolina, Tennessee and Texas, interact with federal officials and participate in topic groups related to security issues, shipment routing and state funding.

Transuranic Waste Transportation

SSEB coordinates activities that aid DOE with environmental management clean-up activities through the efforts of its Transuranic (TRU) Waste Transportation Working Group. Since 1989, the TRU Working Group has outlined the policies and procedures necessary to safely transport shipments of transuranic waste through the southern region en route to the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico. The Working Group is composed of state officials who represent a variety of disciplines including radiological health, emergency response and transportation planning. The following 14 SSEB member states participate on this committee: Alabama, Arkansas, Georgia,

Kentucky, Louisiana, Maryland, Mississippi, Missouri, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia. Under a cooperative agreement with DOE's Carlsbad Field Office, this group of SSEB gubernatorial appointees works with the Department to identify, prioritize and resolve regional issues related to the transportation of transuranic waste.

TRU waste, which is generated from the production of nuclear weapons, is stored in large volumes at multiple sites in the southern region. Most TRU waste consists of solid items such as protective clothing and gloves, rags, lab instruments and equipment and other items that have become contaminated by transuranic isotopes. The Savannah River Site (SRS) in South Carolina and the Oak Ridge National Laboratory (ORNL) in Tennessee contain the bulk of the inventory, but TRU waste also is stored at several small quantity sites (SQS) in the northeastern part of the country. The location of these TRU waste sites place a major transportation burden on the South and are the significant reason SSEB annually issues subgrants of over \$1.5 million to the states impacted by the routes of these shipments. Funding supports equipment purchases, emergency response preparedness activities, public outreach programs, shipment tracking and other planning activities in each state.

The WIPP facility, since opening in 1999, has processed over 6,000 shipments of contact handled waste, and the first shipment of remote-handled waste was received in January 2007. SRS, which was added to the shipping queue in May 2001, has made over 800 shipments and surpassed the million mile mark in highway transport. According to DOE's scheduling profile, SRS and/or ORNL should conduct approximately three shipments per week for the remainder of 2007. The timeframe for the commencement of the SQS shipments has yet to be determined.

In the near future, DOE is anticipating the introduction of a new transportation container, TRUPACT-III, into its fleet of casks. The TRUPACT-III is currently undergoing the Nuclear Regulatory Commission certification process and should be approved by early 2008. The TRUPACT-III is designed to carry larger waste boxes than its predecessor and should reduce the amount of characterization at the sites and the number of shipments to WIPP.



Certification drop tests being performed on a TRUPACT III Prototype Container.

Foreign Research Reactor Spent Nuclear Fuel

The United States began providing foreign countries with nuclear technology during the “Atoms for Peace” program of the 1950’s. The intent of this program was to encourage the nations to use the technology for peaceful research and medical uses and forgo development of nuclear weapons. In order to strengthen this non-proliferation policy, the United States assisted the foreign entities in converting their reactors to use low enriched uranium and also agreed to take back and manage the spent fuel. The Southern States Energy Board emerged as a partner in this commitment in 1994, when DOE requested assistance in the planning efforts to transport two urgent-relief shipments of spent fuel from foreign countries to the Savannah River Site. After completion of these shipments, spent fuel under the auspices of this program would be sent to either SRS or the Idaho National Laboratory (INL) based on the fuel type.

SSEB became fully vested in the campaign with the formation of two committees; the Foreign Research Reactor Spent Nuclear Fuel Transportation Working Group and the Cross-Country Transportation Working Group (CCTWG). The purpose of these committees is to provide state participation in the DOE planning effort to successfully carry out a 23-year shipping campaign (1996-2019) under which the United States would accept up to 20 metric tons

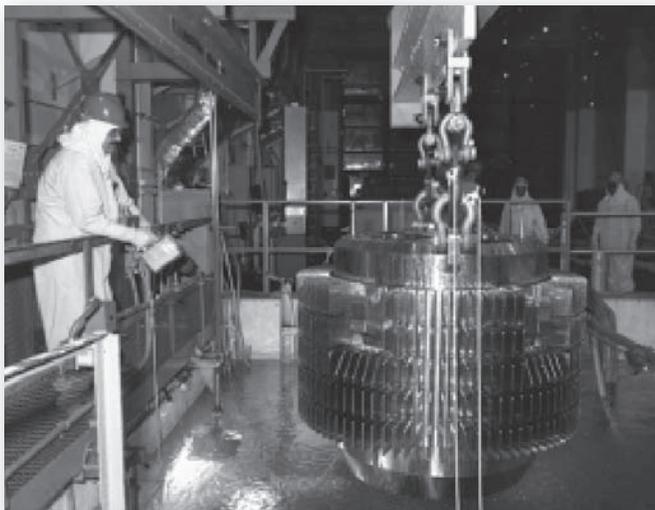
of spent nuclear fuel from research reactors in 41 countries. This campaign could yield approximately 150-300 shipments entering the southern region via the Charleston Naval Weapons Station. Since their formation, these committees have assisted the transportation planning process by informing their state agencies and local officials about the program, coordinating with the shippers and state officials to develop a transportation plan and identifying first responder needs. Additionally, the CCTWG has the added task of providing DOE with a forum to develop a transportation plan for the safe and efficient shipping of this material from SRS to INL. SSEB membership in the CCTWG is comprised of the states of South Carolina, Georgia, Tennessee and Kentucky.

DOE is in the eleventh year of the 23-year return program and has successfully completed a total of 38 shipments, 30 of which have entered the United States through the Charleston Naval Weapons Station. To date, DOE has conducted six cross-country shipments. The first shipment was completed in August 1999. The latest shipment was completed in the latter part of 2006.

SSEB has been involved in the return program for over a decade and has testified before the National Academies on numerous occasions to relay its experience and transportation lessons-learned from this campaign. The information delivered during the testimony was included in the National Academies transportation research and contributed to their publication entitled *Going the Distance? The Safe Transport of Spent Nuclear Fuel and High-Level Radioactive Waste in the United States*.

Radioactive Materials: Emergency Response & Transportation Planning

continued



Savannah River Site employee taking readings on a foreign fuel cask before unloading it into the L-Basin at the Site.

Southern Emergency Response Council

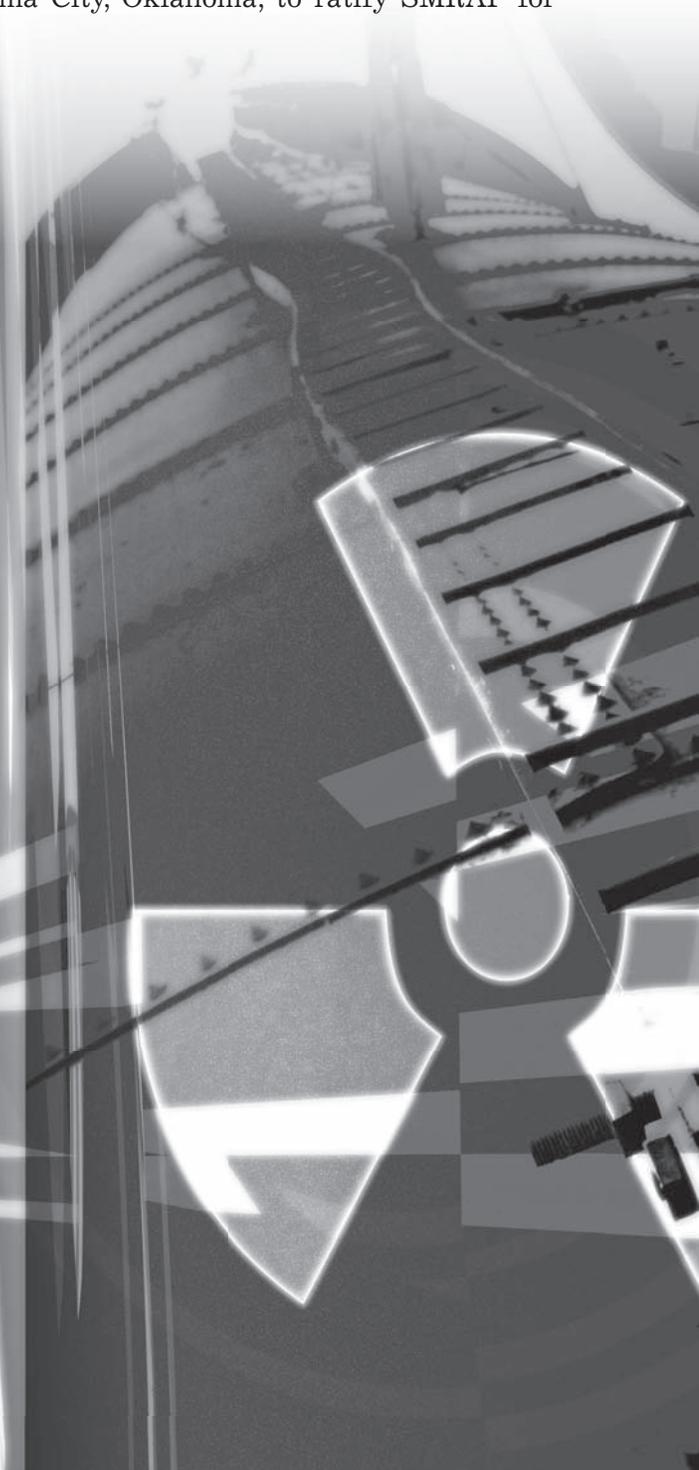
Formed in 1972, the Southern Emergency Response Council (SERC) exists as a formalized emergency response agreement among the southern region to respond in case of a radiological incident. SERC representation is comprised of the 14 signatory states of the Southern Agreement for Mutual State Radiological Assistance, including Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.

The Southern Agreement for Mutual State Radiological Assistance is implemented through the Southern Mutual Radiation Assistance Plan (SMRAP). Created as a blueprint for coordinating radiological emergency assistance capabilities among participating states in the southern region under the Southern States Energy Compact, SERC representatives review, revise and administer SMRAP on an annual basis to reflect changes in state emergency response capabilities and equipment. This document outlines the mutual aid agreement, the implementation process, emergency response contacts and available state resources.

An annual SERC meeting is held by SSEB to provide members with a forum to discuss matters

related to SMRAP. Furthermore, SSEB operates as the regional coordinator for the testing of SMRAP activation procedures during joint power plant exercises between the states. The group convened in Mobile, Alabama, for the 2006 meeting and to approve the yearly addition of SMRAP.

The states will meet again in the Fall of 2007 in Oklahoma City, Oklahoma, to ratify SMRAP for 2008.



Regional Recycling Market Development



The Southern States Waste Management Coalition was created by resolution of the Southern States Energy Board in 1992. Areas of interest include waste minimization, source reduction, recycling, composting, waste to energy, land filling, re-fill/re-use, etc.

During this year, SSEB provided guidance and leadership in planning and organizing a workshop for the Southeast Recycling Alliance, a public-private partnership that includes representatives of state energy and environmental offices, recycling coalitions, industry groups, the U.S. Environmental Protection Agency's Region IV office and others. The Southeast Recycling Alliance conducted a survey of currently available recycling information and developed a singular objective of "providing education and outreach to state and local officials regarding the economic benefits of recycling."

In 2001, the Coalition launched the Recycle Guys campaign in cooperation with EPA's Region IV office. Created in 1997 by the South Carolina Department of Health and Environmental Control, the Recycle Guys are animated characters featured in a series of public service announcements (PSAs) to promote recycling and energy conservation. Their message is conveyed in a variety of video clips and radio spots.

During Phase I of this program, the states of Alabama, Florida, Georgia, Kentucky, Mississippi and Tennessee were awarded funding through the Southern States Energy Board to adopt the existing South Carolina Recycle Guys model by purchasing three public service announcements. Phase II of the Recycle Guys campaign began in 2003. Participants include the eight EPA Region IV states of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee. The current funding for Phase II of the regional campaign is used to strengthen the state campaigns by purchasing cable television air time for the Recycle Guys PSAs adopted during Phase I, purchasing additional Recycle Guys PSAs or financing other Recycle Guys promotional activities identified by the state Recycle Guys campaign coordinators. The Recycle Guys campaign continues its recognition as a key component to the region's public and political awareness activities. Outside the SSEB region, several states, communities and universities have adopted the campaign. Further, the South Carolina Department of Health and Environmental Control reports that they have sent educational materials for distribution to recycling coordinators in England and Ireland.

In light of budget and travel restrictions within state and local governments, a portion of the Phase II funding is allocated to travel reimbursement awards. These awards are necessary to obtain state and local officials' involvement in important national and regional recycling meetings.



The Recycle Guys appear in a series of public service announcements promoting recycling and energy conservation.

Courtesy of the South Carolina Department of Health and Environmental Control



Electric Utility Program

Electric utility customers are experiencing some of the largest price increases in decades. This is due in part to the rising cost of fuels and the expiration of rate caps in states that have chosen to operate in a competitive market. For a number of years, the electric utility industry has been experiencing dramatic changes in the way they conduct business. Today, the utility industry is a blend of competition and regulation. Two of the SSEB member states, along with a number of other states nationally, are operating in a competitive retail market. The Virginia General Assembly enacted re-regulation legislation this year to return to a regulated rate environment.

The Energy Policy Act of 2005 enacted changes in the electric utilities industry. Mandatory and enforceable reliability rules now reside with the federal government as opposed to states. While states have the authority for siting transmission infrastructure, the federal government can authorize the siting if it is not expedited in a timely manner. With all the broadened responsibilities at the Federal Energy Regulatory Commission, there appears to be increasing movement toward regionalization.

The Electric Utility Task Force, composed of Southern States Energy Board members, was established in 1997. The Task Force provides a regional forum for the southern states to exchange knowledge and to address an ever changing electric utility industry. Over the past year, the Task Force has explored specific topics such as transmission projects affecting the South and grid modernization.

In August 2006, utility executives and others responsible for providing adequate, reliable power supply met to discuss transmission related issues at the “Modernizing the Grid Southeast Regional Summit” in Nashville, Tennessee. Sponsored by NETL and the U.S. Department of Energy’s Office of Electricity Delivery and Energy Reliability, the Modern Grid Initiative seeks to accelerate the modernization of our Nation’s electricity grid. Regional issues, unique to the Southeast, were presented and factored into the discussion.

On July 14, 2007, Dominion and SSEB hosted a meeting of SSEB’s Associate Members and the Annual Briefing to Legislative Members in Williamsburg, Virginia. The program included a tour of Dominion’s Surry Nuclear Power Station, located in Surry County in southeastern Virginia. Operational since 1972, the Surry Power Station generates 1,625 megawatts of electric power from its two nuclear reactors.



During 2006-2007, Senator John Watkins (left) of Virginia, SSEB’s Vice Chairman, and Dr. Patrick R. Esposito (right), West Virginia Governor’s Alternate to the Board, served as co-chairs of the Task Force.

Energy & Environment Legislation



The Southern States Energy Board's Energy and Environment Legislative Digest is an annual publication which highlights legislative trends in the South. For more than 25 years, SSEB has published the Digest as a research tool and reference guide for state legislators and their staffs to develop and pass laws in their respective states and territories.

Last year's new format was continued this year to provide

the Board with a more useful document. This design highlights specific issue areas that held particular significance during this current legislative session. Nevertheless, the document still maintains its original form in referencing significant energy and environmental legislation that was enacted by southern state legislatures.

During 2007, SSEB member states passed more than 500 energy and environmental

bills into law. Energy-related legislation focused primarily on biofuels, coal, and utility relations. Environmental measures addressed land management and conservation, pollution control and solid waste.

Legislation in the South reflects a deep commitment by policy-makers to protect our environment and ensure safe, reliable and efficient energy for this region.



Industry Partnerships

The energy industry is increasingly faced with workforce issues. An aging workforce throughout the industry is projected to have a significant impact on the production, maintenance, operation and delivery of energy across the country. Up to 80 percent of the workforce will be eligible for retirement in the next five years. Only a small percentage of those jobs can be filled with a new generation of workers. Individual energy sectors are aggressively addressing the future needs, but they need considerable help to continue to seamlessly supply energy where and when it is needed. This issue has been a priority of the Southern States Energy Board Associate Members.

During this past year, the Associate Members also addressed issues related to the re-emergence of the nuclear industry and grid modernization; state responses to energy emergencies; energy security; low income home energy assistance and weatherization; air quality; carbon management; natural gas supply and infrastructure; water and energy interdependency; energy efficiency and renewables; and state energy and environmental legislation.

The Southern States Energy Board works closely in partnership with its Associate Members to foster economic development in the southern region. Founded in 1984, the Associate Members represent the region's leading energy and technology providers. They contribute invaluable expertise to the social and economic aspects of state and federal legislation as well as ongoing programs and activities of the Southern States Energy Board.

Associate Members

- AGL Resources
- Alpha Natural Resources
- American Electric Power
- Arch Coal, Inc.
- Association of American Railroads
- BP America, Incorporated
- Big Rivers Electric Corporation
- CEMEX
- Center for Energy and Economic Development
- ChevronTexaco Corporation
- Composite Technology Corporation
- Dominion
- Edison Electric Institute
- Entergy Services
- Fibrowatt USA
- Integrated Utility Services USA, Incorporated
- National Coal Council
- National Mining Association
- Nuclear Energy Institute
- Old Dominion Electric Cooperative
- Peabody Energy
- Praxair, Incorporated
- Progress Energy
- Rentech, Incorporated
- S&ME, Incorporated
- Santee Cooper
- SCANA
- Shell Oil Company
- Southern Company (The)
- TECO Energy, Incorporated
- TXU Corporation
- Tennessee Valley Authority (TVA)

Sources of Support

The Southern States Energy Board's core funding comes from annual appropriations from the 18 member states and territories. Each member's share is computed by a formula written into the original Compact. This formula is comprised of an equal share, per capita income and population. The Board has not requested an increase in annual appropriations in more than 20 years.

The Board also is authorized to accept funds from any state, federal agency, interstate agency, institution, person, firm or corporation provided those funds are used for the Board's purposes and functions. This year, additional support was received for special projects from research grants, cooperative agreements and contracts from the U.S. Department of Energy, U.S. Environmental Protection Agency and U.S. Department of Agriculture. The American Energy Security activities were financially sponsored in part by the Commonwealth of Kentucky, Governor's Office of Energy Policy; Peabody Energy; EnviRes LLC; NextGen Energy Council; Rentech Incorporated; Shell; Global Resources; and A. J. Mayer International. Additionally, the Nuclear Energy Institute provided funding to SSEB during this year for the research and development of a document entitled *Nuclear Energy: Cornerstone of Southern Living, Today and Tomorrow* (July 2006).

In addition, SSEB maintains an Associate Members program comprised of industry partners who provide an annual contribution to

the Board. Membership includes organizations from the non-governmental sector, corporations, trade associations and public advocacy groups. The Associate Members program provides an opportunity for public officials and industry representatives to exchange ideas, define objectives and advance energy and environmental planning to improve and enhance the South's economic and environmental well-being.

State	Appropriation
Alabama	\$32,572
Arkansas	\$31,027
Florida	\$47,212
Georgia	\$35,782
Kentucky	\$32,197
Louisiana	\$33,817
Maryland	\$37,192
Mississippi	\$29,077
Missouri	\$36,247
North Carolina	\$37,042
Oklahoma	\$32,512
Puerto Rico	\$25,597
South Carolina	\$31,372
Tennessee	\$34,267
Texas	\$55,402
U.S. Virgin Islands	\$25,297
Virginia	\$38,362
West Virginia	\$28,732

Selected Reports & Publications

Energy and Environment Information

Annually, numerous requests for specific technical and policy information occur from SSEB members, state and federal government officials, legislators and other parties, including the general public. SSEB provides direct technical and analytical support to its constituents on a variety of energy and environmental issues facing the region.

SSEB also maintains a website, accessible at www.sseb.org, that serves as a primary link to energy and environmental resources on the internet. Visitors can quickly link to a variety of data and download the latest SSEB publications. Following is a list of SSEB's frequently requested publications.

American Energy Security Study. July 2006.

This study provides an approach for America to establish energy security and independence through the production of alternative oil and liquid fuels from our vast domestic resources that include coal, biomass and oil shale. The study also emphasizes the need for improved domestic enhanced oil recovery programs using carbon dioxide, increased voluntary transportation fuel efficiency and sensible energy conservation.

Annual Report 2007. July 2007.

This report contains a statement by SSEB Chairman Joe Manchin, III, Governor of West Virginia, updates on SSEB programs and activities, Board members and staff listing.

An Assessment of Biomass-related State Programs and Policies. July 2005.

The analysis considers a broad range of policies and incentives throughout the United States and examines their impact on the bioenergy and biobased product industry. This study was funded by the National Energy Technology Laboratory.

Assessment of Opportunities to Co-locate Ethanol-from-Cellulose Plants at Coal-Fueled Power Plants in the Southeastern U.S. July 2002.

Co-locating ethanol-from-cellulose plants near coal-fired power plant projects can result in advantages for both facilities. This assessment provides a list of plants and highlights important siting criteria.

Coal: The Indispensable Energy Resource, a Compendium of Vital Information About Coal and the Southern Region. September 1997.

This special report assesses the coal industry's presence and contribution to the southern region so that policy-makers can utilize the information in assessing the growth of their state's economy.

Coal, Clean Coal Technology and Advanced Power Systems: U.S. Opportunities in Brazil. September 1999.

The U.S.-Brazil Coal and Clean Coal Technology Export Package (1) identifies coal and clean coal technology needs for Brazil; (2) summarizes actions that have been taken, are planned or are suggested to position U.S. companies to win projects; and (3) provides points-of-contact and other information that may be of value to companies interested in positioning themselves to sell goods and services to the Brazilian coal and power industries. The compilation of information and ideas is a resource for companies to develop their individual Brazilian marketing strategies.

Coal Regulatory Legislation in the Southern States: 1995-2003. September 2003.

SSEB member states' regulations on the utilization of our coal resources are detailed in this summary document. Included are brief descriptions of laws enacted with regard to coal and minerals in the southern states during the 1995-2003 legislative sessions. This list is requested frequently from agencies that develop legislation affecting the industrial use of coal and the regulation of environmental quality within their states.

Compendium of Energy Task Forces in the Southern States. January 2002.

This is an ongoing compilation of information on the energy task forces in the southern region. It includes reports prepared by these task forces, as well as executive orders, press releases and meeting summaries.

Economic Benefits of Recycling in the Southern States. August 1996.

The Southern States Waste Management Coalition initiated this study on the economic activity associated with recycling in the South. It provides information that can be used to promote investment in the regional recycling industry. Analysis considers the employment and value-added by processing materials recovered from the municipal solid waste stream and using these materials in manufacturing.

Energy and Environment Legislative Digest 2007. July 2007.

The legislative digest is an annual synopsis compilation of representative energy and environmental quality legislation enacted by Southern States Energy Board member jurisdictions. This edition summarizes the laws from the 2006 legislative sessions and includes an introduction by John C. Watkins, Senator of Virginia and SSEB Vice-Chairman.

Energy Offices in the South. December 2001.

The organizational structure, function and scope of state energy offices in the southern region are provided in this 2001 report. The information proves useful to southern lawmakers, their staffs and all parties interested in energy matters in the South.

Energy Policy in the South - Integrating Energy, Environment, and Economic Development: A Balanced and Comprehensive Approach. September 2001.

Prepared for the Southern Governors' Task Force on Energy Policy, this document was approved by the southern governors on August 7, 2001. It contains five key principles and policy options for a southern regional energy policy.

Household Products Management: A Resource Guide for Managing Household Products and Household Hazardous Waste. 1999.

This guide assists officials who are responsible for the safe management of household product waste and advises residents about proper disposal of these products. It is designed for the use and distribution by local governments that do not have household hazardous waste collection programs and experience in managing household product waste or household hazardous waste.

Industry Survey Final Report - Developing State Policies Supportive of Bioenergy Development. July 2004.

Biobased industry officials were surveyed to determine the impact of existing and/or lack of policies on efforts to develop, deploy or use biobased technologies or products. Although this survey was focused on industry, in some cases questionnaires were sent throughout North America to trade associations, and a few questionnaires were sent to selected government officials and academia throughout North America. The survey asked for comments on the effectiveness of the existing policies and programs and asked to suggest changes in the existing policies and programs or suggest new policies and programs that are needed. The survey also asked those suggesting changes or new policies and programs to explain the rationale for their suggestions.

Integrated Management of Municipal Solid Waste: A Handbook for Local Officials. January 1995.

Local officials often face important issues when managing municipal solid waste systems. This handbook answers the questions that solid waste managers must ask when developing an integrated solid waste management system and refers the reader to more detailed information about solid waste management techniques found in the Southern States Waste Management Coalition's database of solid waste information.

Integration of Systems and Technologies for Clean Coal Power and Industrial Symbiosis in Thailand. January 2004.

This report is a product of a three-year cooperative effort, led by the Southern States Energy Board, to promote U.S. systems and technologies for clean fossil power and industrial symbiosis in Thailand's industrial estates.

Nuclear Energy: Cornerstone of Southern Living, Today and Tomorrow. July 2006.

New nuclear power plants will be essential to continued prosperity in the South as electricity demands rise rapidly in the fast-growing SSEB states. As stated in this report, nuclear power provides a reliable, economical, carbon-free source of electricity to help fuel strong economic growth in the states of the Southern States Energy Board.

Pay-As-You-Throw Programs in the South: Summaries of Existing Unit Pricing Programs for Municipal Solid Waste Collection. June 1997.

A product of the SSWMC, this document contains a brief compilation of the programs in the SSEB region as of June 1997. It is intended as a quick reference for local officials interested in PAYT.

Processing Recyclables for Markets: A One-Stop Commodity Guidebook for Local Governments. February 1995.

The goal of this guidebook is to assist local leaders and other processors of recyclable commodities in developing processing and marketing systems that are appropriate, efficient and sustainable. State and local officials throughout the region use this document on a regular basis.

Southeastern Regional Technology Deployment Workshop: Results and Lessons Learned. September 1999.

Following the Southeastern Regional Technology Deployment Workshop in 1999, SSEB compiled a list of results and lessons learned. The findings are documented in this summary, consisting of (1) background information on the setup of the southeastern workshop; (2) a list of incentives and recommendations for deploying innovative technologies at DOE sites; (3) a list of the lessons learned from the southeastern workshop; and (4) results from the post-workshop survey.

Southern Mutual Radiation Assistance Plan (SMRAP). December 2006 (2007 edition available in December).

This annual publication contains the general provisions of the Southern Mutual Radiation Assistance Plan, which provides a mechanism for coordinating radiological emergency assistance capabilities among participating states. It is updated annually by the Southern Emergency Response Council, for which SSEB serves as secretariat.

Tires and Solid Waste to Electricity: A Review for Missouri Department of Natural Resources. November 2005.

The use of tire-derived fuel (TDF) to produce energy is a viable source of electrical power generation. At the direct request of the state of Missouri, SSEB prepared this report on the technical aspects of converting tires and solid waste to electricity; the status of TDF and municipal solid waste to energy legislation for state programs; electric utility issues; and specific opportunities for the state of Missouri.

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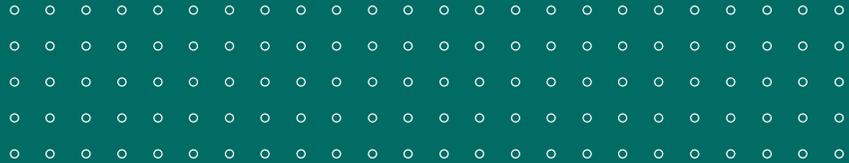
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