Developing State Policies Supportive of Bioenergy Development

Technical Progress Report
July 1, 2003 through September 30, 2003

Submitted October 31, 2003

Submitted to the U.S. Department of Energy
National Energy Technology Laboratory
Pittsburgh, Pennsylvania
Cooperative Agreement Instrument No. DE-FC26-01NT41128

Submitted by
Kathryn Baskin
Southern States Energy Board
6325 Amherst Court
Norcross, Georgia 30092

Disclaimer

“This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.”

Table of Contents

Abstract.....	4
Introduction.....	5
Executive Summary	6
Goal	6
Statement of Work	7
Experimental	9
Results and Discussion.....	9
Conclusion	10
References.....	11
Appendices.....	12
Appendix A—Biobased Alliance Meeting Summary, September 20, 2003	13
Appendix B—Biobased Alliance Meeting Agenda, September 20, 2003.....	16
Appendix C—Update on Energy Policy Act of 2003.....	18
Appendix D—The DOE National Biomass State and Regional Partnership	21
Appendix E—Preliminary Results of Biomass Industry Survey on Government Policies	24

Abstract

Working within the context of the Southern States Biobased Alliance (SSBA) and with officials in each state, the Southern States Energy Board (SSEB) is identifying bioenergy-related policies and programs within each state to determine their impact on the development, deployment or use of bioenergy. In addition, SSEB will determine which policies have impacted industry's efforts to develop, deploy or use biobased technologies or products. As a result, SSEB will work with the Southern States Biobased Alliance to determine how policy changes might address any negative impacts or enhance positive impacts.

Introduction

The President's National Energy Policy recognizes the need to increase and diversify domestic energy resources of traditional and alternative fuels. As stated in the Report of the National Energy Policy Development Group (NEPD) published in May 2001, continued growth of renewable energy will continue to be important in delivering larger supplies of clean, domestic power for America's growing economy.

The NEPD Group recommended that the tax credit for electricity produced from biomass and wind be extended and that eligible biomass sources should include forest-related sources, agricultural sources, and certain urban sources. In addition, the NEPD Group supported a credit for electricity produced from biomass co-fired with coal.

The Administration's FY03 Budget Request includes a number of proposed tax incentives to encourage energy efficiency and the use of renewable energy resources. Besides the recommended tax incentives in the National Energy Policy, the budget request also creates new tax incentives as well as extends some existing energy tax incentives.

In September 2001, SSEB and the Southern Governors' Association addressed energy policy in the southern states and adopted ***Energy Policy in the South- Integrating Energy, Environment and Economic Development: A Balanced and Comprehensive Approach*** that is in concert with the President's National Energy Plan. It was presented to Vice President Cheney at the 2001 Annual Meeting of the Southern Governors Association and the SSEB

The cornerstone of this report is the need for a stable, reliable and secure energy supply. The five key principles highlighted in the document are as follows:

- Ensure diversity of domestic energy resources to achieve energy and economic stability;
- Address supply to enable market stability and ensure energy reliability;
- Increase conservation and improve efficiency to minimize environmental impact and foster demand response;
- Expand and strengthen infrastructure capacity; and
- Advance R&D and use clean energy technologies and systems.

The Southern Governors recognize that in order to maintain the world's strongest economy and protect National security coupled with a clean environment, states must support and develop policies and technologies that enable a diversity of domestic energy resources to be utilized throughout the region. The Southern Governors called upon Congress to provide adequate funding and incentives for further development of clean and efficient technologies and systems to provide an effective approach to increasing domestic energy supplies.

In the Energy Policy in the South, the Southern Governors recommend that states should develop programs and policies that will foster a regional market in the southern states for biofuels and bioenergy. This project addresses the need to develop state policies that are supportive of the development, deployment, and use of biobased technologies and products.

Over its lifetime, the Regional Biomass Energy Program has developed close linkages with state energy offices and other state agencies. State officials are key bioenergy stakeholders; especially since elected officials set policies within their states, have power over programs, and control appropriations that can positively or negatively impact the development, deployment, and use of bioenergy. However, career state officials are influential too as they carry out state programs and policies, and provide continuity across changing administrations. State governments are also important, as the federal government cannot, by itself, attain the potential of the region without the cooperation and assistance of the states. It is therefore essential for state officials to understand the benefits of bioenergy and the impact state policies have on bioenergy, and that these policies be supportive.

The Southern States Energy Board is an interstate compact that includes 16 southeastern states and Puerto Rico and the US Virgin Islands. One of the Southern States Energy Board's goals over its 40-year life is to "...develop, promote, and recommend policies and programs on energy, environment, and economics that encourage sustainable development." One way that the Southern States Energy Board accomplishes this goal is to establish task forces comprised of members from its states, the private sector, non-profits, and others. The Southern States Energy Board, which is also the host for the Southeastern Regional Biomass Energy Program, is currently in the progress of setting up a biobased task force, which has been named the Southern States Bio-Based Alliance.

Activities of the Southern States Bio-Based Alliance are focused on creating awareness, and providing information and education for its members. As the members of the Southern States Bio-Based Alliance assess the opportunities for bio-based products and bioenergy in the region, the group will review and, if necessary, make recommendations for modifying or adding to their existing policies to make them supportive of bioenergy development, deployment, and use. The Southern States Bio-Based Alliance will also provide a forum for discussing and developing additional bioenergy-related policies when the need arises in the future.

Although not targeted at local government officials, this activity will also impact policies at the local level since local officials frequently follow the lead of their state government in setting local policy.

Executive Summary

Goal

The goal of this project is to have state policies within the SSEB region (and nation) that, to the extent possible, positively impact the development, deployment, or use of bioenergy and are consistent among states.

Statement of Work

Working within the context of the Southern States Bio-Based Alliance and with officials in each state, a staff member and/or contractor will identify bioenergy-related policies and programs within each state and determine their impact (in any way) on the development, deployment, or use of bioenergy. The staff member and/or contractor will be asked to determine as quantitatively as possible how this impact occurs, and how the legislation originally came to be promulgated.

Additionally and simultaneously, the staff member and/or contractor will be interviewing bio-based industry officials to determine what policies (or lack of policies) have impacted their efforts to develop, deploy, or use biobased technologies or products. The staff member and/or contractor will also try to determine the nature of these impacts and how policy changes might address any negative impacts or increase positive impacts.

These policies may involve the following aspects or other aspects:

- Financial and other incentives for technology development, testing, demonstration, deployment, and/or use;
- Permitting and licensing processes related to construction of new facilities, modification of existing facilities, and/or use of new products;
- Regulations pertaining to land use and siting (e.g., zoning, height restrictions) of bioenergy facilities; or running utilities to bioenergy facilities;
- Environmental regulations including air and water quality protection related to bioenergy facilities or the production of biomass crops; wildlife management, development of new agricultural and forestry crops, testing new technologies;
- Resources for relevant state agencies and programs including staffing qualifications and needs;
- Policies pertaining to state procurement, specification, bidding, and purchasing requirements to design, finance, and/or build new or modify existing state facilities;
- Policies pertaining to state procurement, specification, bidding, purchasing, and/or use requirements for biomass fuels or bio-based products;
- State educational policies;
- Technical assistance;
- Solid waste management and recycling programs;
- Economic development and industry recruitment;
- Agricultural and forestry production;
- Transportation of biomass feedstocks and bio-based products;
- Taxes including investment, corporate, road use, etc.
- Project financing;
- Utility deregulation including power sales to others, stranded costs, electricity pricing; renewable portfolio standards, and wheeling policies;
- Health and safety;
- Purchase of alternative fuel vehicles and installation of refueling stations.

Once the policies are identified and analyzed for impact, SSEB will host a series of meetings of the Alliance to:

- Share the findings with other states using an interactive meeting forum
- For policies that provide negative impacts, the state representatives will be asked to determine how to *change* their state policies to provide positive impacts based on discussions of successes in other states.
- Also based on successes in other states and the ensuing discussion, the state representatives will determine if they need to *add new* policies in their states. The group will be asked to draft model legislation to fulfill these needs that can be taken back and implemented within their respective states.

Due to the wide range of policies and to keep each meeting manageable, policies that are more closely allied will be lumped together for discussion and meeting purposes. This approach will also make it easier to get officials from the appropriate state agencies to attend the meetings, since they will know that a particular meeting will deal with the topics that are relevant to them.

In addition to attaining the project goal, this project approach will facilitate information sharing and education on state policies and their ramifications, create peer reaction, and ultimately provide more uniform regulations across the region that are supportive of bioenergy development, deployment, and use.

Experimental

Due to the nature of the project, no experimental methods, materials or equipment are necessary.

Results and Discussion

The goal of this project is to identify and compile into one document, bioenergy and biobased-related government policies and programs in the US and to determine the effectiveness of these policies and programs. This final document is meant to serve as a resource for industry that has interest in and need for this specific information, and for government officials contemplating modification of existing legislation or creation of new legislation, policies, or programs. As a result, government officials will be able to learn from the experiences of others and efficiently create new model legislation for their states.

Task 1 is to identify bioenergy-related policies and programs for all states and determine their impact on the development, deployment, and use of bioenergy. Examples of biomass related policies and programs include tax credits, loan and grant programs and their funding mechanisms (e.g., appropriations, system benefit charges), renewable portfolio standards, etc. Potential sources of information include the SSEB legislative digest, the Interstate Renewable Energy database, state officials and websites, industry officials and trade associations, etc. A literature review has been partially conducted for this task. A list of state officials, industry trade associations, and others familiar with bioenergy-related programs and policies has been compiled and contacting of these officials has begun.

Work has started on Task 2a, which is to interview biobased industry officials to determine the impact of existing and or lack of policies on efforts to develop, deploy, or use biobased technologies or products. A listing of selected industry representatives and other beneficiaries of the legislation and programs identified in Task 1 is being compiled.

The draft document prepared in Task 1 will be sent to selected industry representatives and other beneficiaries of the legislation and programs identified in Task 2a. Those surveyed will be asked to provide 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 will also ask those suggesting changes or new policies and programs to explain the rationale for their suggestions.

Task 3

Formed in July 2001, the Southern States Biobased Alliance (Alliance) works in an advisory capacity to the Southern States Energy Board (SSEB), 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 representing SSEB member states and representatives of the public or private sector who are active in energy, environment and agriculture issues. Alliance appointees serve at the pleasure of their respective governors.

Upon its inception, the Alliance established goals to guide the group in building public/private partnerships that advance the economies of SSEB states through unique state, local, and industry networks. These goals provide regional leadership to the Southern States Energy Board and to 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.
- Providing electronic access to information, public forums and appropriate links to facilitate information transfer on Biobased products and bioenergy.
- Advancing research, development, and demonstration of Biobased technologies and promote the use of those technologies.

The Alliance conducts these activities to augment federal efforts directed to increase the use of biobased products and bioenergy in the United States. Expanding the biobased industry in the southern states continues to generate new income for farmers, create employment opportunities in rural communities, lead to a reduced dependence on imported oil, and reduce greenhouse gas emissions. At the federal level, the U.S. Department of Energy (DOE), the U.S. Department of Agriculture, the U.S. Environmental Protection Agency and the National Science Foundation are leading this effort.

Building on the inaugural Alliance meeting, the Alliance reconvened in May 2003 to appraise actions to further build a stronger biobased industry in the southern region. A work plan was formulated at this time to aide in the groups' sustained development. Throughout the remainder of 2003 and 2004 the Alliance will focus on increased outreach to promote awareness of the group with development of multi-media products and Alliance delegation interface with federal and state leaders. An agenda and brief summary of the meeting is attached under Appendix A.

Additionally, the Alliance continues to monitor legislation in the southern states that will increase the production and use of bioenergy. The Alliance will continue to review these legislative initiatives and others to make future recommendations to the Southern States Energy Board.

The Alliance co-chairs for 2003 are Representative Roger Thomas of Kentucky and Mr. Fred Allen, former Director of the Georgia Forestry Commission.

Conclusion

Beyond the potential economic development benefits, states gain the opportunity to strengthen and integrate the work of energy, agriculture, forestry, environmental and other state agencies. Where issues are the same among several states, strategies can be developed to address these issues without regard to state borders. Examples include the development of

similar legislative actions, working with the private sector with multi-state locations, and multi-state training and outreach to economize resources.

Notably, several southern states have long-standing policies and programs that support the use of bioenergy. Therefore, some states have a more developed bioenergy economy than others. However, all states in the southern region have significant biomass resources. SSEB will report these findings in the final report. In addition, SSEB is conducting a survey of industry and expects to have a preliminary report on these findings to present to the Alliance members and the Southern States Energy Board at the 2003 Annual Meeting of the governors and state legislators. SSEB's Annual Meeting will be on September 20-24, 2003 in Charleston, West Virginia.

References

No new references were used for this quarterly report.

Appendices

A—Biobased Alliance Meeting Summary

B—Biobased Alliance Meeting Agenda

C—Update on Energy Policy Act of 2003

D—The DOE National Biomass State and Regional Partnership

E—Preliminary Results of a Biomass Industry Survey on Government Policies

Appendix A—Biobased Alliance Meeting Summary, September 20, 2003

Southern State Bio-Based Alliance Meeting

September 20, 2003

Charleston, West Virginia

Meeting Summary

The Southern States Bio-Based Alliance (Alliance) held a meeting in Charleston, West Virginia on September 20, 2003, in conjunction with the SSEB Annual Meeting and the Southern Governor's Association Annual Meeting. This meeting was held to further planning, communication, and collaboration among the group.

A copy of the meeting agenda is provided in the appendix of this report. The order of presentations from the agenda was changed because of problems with the PowerPoint projector.

Representative Roger Thomas of Kentucky, Alliance Co-chair, gave the welcome and opening remarks.

The SSEB Federal Representative, Mr. Brian Griffin, welcomed the group and brought greetings from President Bush.

Mr. Wilson Golden, Vice President, Infrastructure Group, Jefferson Government Relations LLC, gave an update on the Energy Policy Act of 2003. A copy of his remarks is provided in the appendix of this report.

Dr. Rich Russell, West Virginia University Dept of Animal Science, reported on a SSEB/SERBERP sponsored project to convert poultry litter and other animal wastes into a diesel fuel. The project is being conducted jointly with the WVU Departments of Chemical Engineering and Mechanical Engineering under the direction of the West Virginia Development Office.

The process is relatively simple and involves mixing the poultry litter with water and subjecting it to 150 C heat and 2000 psi pressure. With previous favorable laboratory results, WVU has contracted with NorthCo Corporation to make a pilot plant for further research. NorthCo is also located in Morgantown, WV, and manufactures equipment for the coal mining industry. The pilot plant is nearly finished and will be tested within a few months.

Mr. Lou Hamrick, President of Northco gave a presentation on his part of the project. One goal of the project is make small processing plants that could be cost effective at a farm scale and be priced similar to a mid-size farm tractor. The fuel has been tested by DOE's NETL and can fuel diesel engines without modifications to the engine. NorthCo is interested in manufacturing and marketing synthetic diesel production plants based on the technology and is presently in negotiations to obtain manufacturing rights.

At the conclusion of the Alliance meeting, the Alliance members were led outside of the hotel entrance to observe a demonstration of an engine operating on synthetic diesel fuel derived from poultry litter.

Mr. John “Jeff” Herholdt, Manager, Energy Efficiency Program, West Virginia Development Office, spoke on the DOE National Biomass State and Regional Partnership. A copy of his remarks is provided in the appendix of this report.

Mr. Phillip Badger, Technical Advisor on Bioenergy, Southern States Energy Board, presented the preliminary results of a Bioenergy and Biobased Policy Survey conducted by SSEB. A summary of Mr. Badger’s presentation is provided in the appendix of this report.

Appendix B—Biobased Alliance Meeting Agenda, September 20, 2003

Southern States Energy Board

Southern States Biobased Alliance

Embassy Suites

Charleston, West Virginia

Saturday, September 20, 2003

8:00 to 10:00 a.m.

A G E N D A

7:30 a.m. BEAKFAST BUFFET

8:00 a.m. Welcome and Introductions
Representative Roger Thomas
State of Kentucky
Co-chair, Southern States Biobased Alliance

Conversion of Poultry Litter to Diesel Fuel
Dr. Rich Russell, Associate Professor, Animal Science
West Virginia University

Mr. Lou Hamrick, President
Northco, Inc.

Update on the Energy Bill
Mr. Wilson Golden, Vice President, Infrastructure Group
Jefferson Government Relations, LLC

The DOE National Biomass State and Regional Partnership
Mr. John "Jeff" Herholdt, Manager, Energy Efficiency Program
West Virginia Development Office

Results of a Biomass Industry Survey on Government Policies
Mr. Phillip Badger, Technical Advisor on Bioenergy
Southern States Energy Board

Business Meeting
☞ Establishment of Task Forces
☞ Next meeting date and location

9:30 a.m. Technology Demonstration
(Outside Location to be Announced)
This demonstration transforms a waste product, chicken litter, into a needed product, biodiesel fuel, that can enable our poultry farms to be net energy generators.

10:00 a.m. Adjourn

Appendix C—Update on Energy Policy Act of 2003
Remarks by Wilson Golden

Energy Policy Act of 2003 Legislative Update

by Wilson Golden
Legislative Consultant to SSEB
Jefferson Government Relations
Washington, DC

Presented to the **Southern States Biobased Alliance** and the **SSEB Associate Members and Utility Advisory Committee** at the Annual Meeting of the Southern Governor's Association and Southern States Energy Board
Charleston, West Virginia
September 20, 2003

SSEB legislative consultant Wilson Golden, Vice President, Jefferson Government Relations, Washington, DC, gave an overview of the status of the Energy Policy Act of 2003 (HR 6). The legislation--and its earlier versions--has been pending before the Congress since 2001, and its prognosis is uncertain as this year's adjournment approaches. Mr. Golden pointed to several potential "show stoppers" in the two versions of the bill, including as examples Alaska Natural Wildlife Refuge drilling, the renewable power mandates and the sharp regional differences on the electric reliability issues (SMD/RTO).

Specific roadblocks to action this year include the congressional appropriations and adjournment calendar, the pendency of practically all Fiscal Year 2004 federal appropriations on the eve of the beginning of the government's new fiscal year and such "Big Issues" as the President's proposed \$87 Billion Iraq/Afghanistan military and reconstruction "supplemental" appropriations bill and the Medicare prescription drug benefits legislation, among others.

Other negative factors identified in assessing the likelihood, or even the possibility, of legislation being enacted before the end of this session include the record deficit and growing cost of the aftermath of Iraq and Afghanistan; these are somewhat offset by the major push for passage of energy legislation by the Administration and leading members of Congress of both parties, together with the momentum resulting from the August 14 Northeast/Midwest power blackout.

Another looming factor in the equation is the closely divided Congress and American electorate. While Republicans ostensibly control both the Executive and Legislative branches of the federal government, the majorities in both the House of Representatives and Senate are so thin that every major bill like the Energy Policy Act requires striking a delicate balance between the two houses, the parties and the divergent economic and geographic interests of the nation. Every trade off on a major feature in the energy bill invokes a

counterbalancing with one or more other sectors of the energy industry, the states and regions and other major influences.

While technically the legislation remains alive in the 2nd Session of the 108th Congress, action on such controversial legislation during the 2004 presidential election year is considered highly doubtful by most observers. On the other hand, as Golden pointed out, all other things being equal, the intangible force of the personalities of some of the congressional leaders might well tip the balance in favor passage of energy legislation this year.

**Appendix D—The DOE National Biomass State and Regional Partnership
Remarks by John “Jeff” Herholdt**

Southern States Energy Board
Southern States Biobased Alliance Meeting
Remarks by Jeff Herholdt
Charleston, West Virginia

September 20, 2003

In 2002, DOE integrated all the biomass activities under the Office of the Biopower Program. As part of the reorganization, the Southern States Energy Board, the Coalition of Northeastern Governors Policy Research Center, Inc., the Council of Great Lakes Governors, the Western Governors' Association, the National Association of State Energy Officials and DOE plan to enter into a multi-year agreement with the DOE through a newly formed National Biomass State and Regional Partnership. The funding for the Partnership is the result of the \$3 million earmark in the 2003 Energy and Water Development Appropriations bill. Governor Ronnie Musgrove and Senator Thad Cochran were the champions of the earmark succeeding.

This initiative will replace the former DOE Regional Biomass Energy Program. The goal of the Partnership is to work cooperatively with the DOE Office of Biomass Programs (OBP) to facilitate the increased use of bioenergy and biobased products through coordinated federal, regional and state outreach, education and technical assistance programs.

The Regional Governors' Organizations have submitted their financial application packages to Golden and hopefully, will receive their multi-year cooperative agreements before the end of this month. Although the earmark was \$3 million, the actual funding available for all five regional projects is \$2,882,963.

The funds are allocated on a different distribution formula than in the previous regional biomass program. Each region will receive an equal proportion for technical assistance, outreach and management. For FY03 funds, the amount is \$200,000. The balance of the funding is distributed based on the number of states and jurisdictions in each regional partnership.

The regional organizations agreed that each region would remain the same as geographically defined in the previous regional biomass energy program. Therefore, the Great Lakes region represents 7 states; the Northeast region represents 11 states; the Pacific-Northwest region represents 6 states; the Southeast region represents 13 states, the District of Columbia, Puerto Rico and the U.S. Virgin Islands. Based on the remaining funds of \$1,882,963, each organization is receiving \$35,560 per state in the region for outreach activities including state-specific projects.

In order to have the new cooperative agreements effective before the end of the fiscal year, DOE is allowing each organization to submit their “project management plan” subsequent to the application process. Therefore, each regional organization submitted a general budget in the appropriate budget categories. Each region has the discretion to allocate the budget according to the project management plan.

As a Partnership, milestones and results that recognize regional priorities will be established for the program as a whole. One of the first activities of the Partnership is to determine milestones and anticipated results. Planning for the next Partnership meeting is underway. We expect to meet in late October or early November.

Appendix E—Preliminary Results of Biomass Industry Survey on Government Policies
Remarks by Phillip Badger

Southern States Energy Board
Southern States Biobased Alliance Meeting
Summary of Presentation by Phillip Badger
Charleston, West Virginia

September 20, 2003

The Bioenergy and Biobased Policy Survey was conducted to interview biobased industry officials to determine the impact of existing policies or lack of policies on efforts to develop, deploy, or use biobased technologies or products. Comments were solicited on the effectiveness of existing bioenergy or biobased-related policies and programs, as well as suggestions for changes in the existing policies and programs, or suggested new policies and programs needed. The final report from this survey is meant to serve as a resource for government officials contemplating modification of existing legislation or creation of new legislation, policies, or programs. The questionnaire consisted of four questions, which were designed to determine familiarity and importance of existing government policies and procedures; determine specific policies and procedures attributes of importance, and how they could be improved; determine the need for new policies and procedures; and determine familiarity with their specific state's policies and procedures. The survey focused primarily on private industry and the South, but was also sent nationwide, with a few sent internationally. Included were some trade associations, government officials, and academia. Names were selected from the SERBEP database and various industry lists. Surveys were sent by email, fax, and snail mail. Approximately fourteen hundred surveys were sent out, and 88 responses (or 10%) received by the time of the meeting. Most responses centered on economic or financial issues, and many tended toward the negative. Responses received were mainly from small business, since the industry is mainly small business. The results showed a general lack of awareness of federal or state government policies and procedures.

Respondents of the Bioenergy and Biobased Policy Survey stated that there is too much emphasis on R&D and not enough on commercialization and application. It is believed that there is too much R&D funding for things that are already commercial. More emphasis is needed on developing bioenergy markets for pulpwood and CRP trees and on utility scale bioenergy applications.

There is also a need for education programs focused on environmental regulators, and more integration with current government economic development programs is needed. More financial assistance is needed for private companies, especially small companies. Private business should not have to compete against the federal agencies that are issuing the solicitations. It is believed that programs to provide financial assistance to the private sector should be considered investments by the government, not expenses. Also, Section 45 tax credits need to be broadened, and biomass fuel should be included in all state electrical energy portfolios. Utilities should be required to pay based on their true avoided costs. Utilities should be required to pay a minimum amount of 5.5 to 10 cents per kWh or \$5 to \$6 per million Btu for renewable energy. Renewable energy users should not have to pay exit penalties to the utilities.

Respondents stated that the various definitions for biomass sometimes serve as an impediment; also utility interconnection issues remain a major impediment. The industry would be helped if uniform interconnection guidelines were adopted nationally by FERC. A national policy is needed requiring utilities to pay 3-5 cents per kWh over their avoided costs is needed; also a clean carbon credit policy would allow biomass plantations to be financed. More support needs to go to the Regional Biomass Energy Program and other programs that include support for industry. New policies and programs most needed are those that result in getting existing knowledge and funding into the field where it is needed. Policies need to be changed to decrease the focus on R&D. Funding for demonstration of technology, including loan guarantees, needs to be made available. Funding to bridge the gap between R&D and commercial status is needed. Mandatory cost sharing is a problem for many small businesses; cost sharing requirements should either be waived for small companies or scaled to company size. States should establish programs to purchase bioenergy products and services. Government should establish programs to provide or assist industry with performance bonds, performance guarantees, liability insurance, and/or loan guarantees.

Responders were not aware of bioenergy and biobased programs in Virginia, Georgia, Alabama, and Missouri. Responders were aware of programs in Illinois, California, and Minnesota.