

ACTION

From the Editor

Alternative Energy Sources

"Action," a quarterly publication of the Economic and Community Development Institute (ECDI), has a new look. This is more than a cosmetic change to the front page – "Action" has a completely revised format designed to better serve Alabama citizens and the communities in which they live. The new format will include four sections: From the Editor, ECDI in Action, Resource Tools, and What's Happening in Alabama. The From the Editor segment will appear in the left column of the first page and will identify the publisher, purposes, topics and authors. ECDI in Action will provide a brief overview of one area of ECDI programming and will fill the remainder of the first page and the entire second page. Resource Tools will be on page three and will provide information on community development programs, strategies and tools to assist Alabama community leaders. The last page will consist of What's Happening in Alabama, a segment designed to identify community development activities around the state.

ECDI's vision is to become the state's preeminent change agent for positive economic and community development policy and practice. ECDI seeks to play a leading role in revitalizing Alabama's communities, especially in the state's rural areas. "Action" is one tool we use to link community groups to Auburn University's and the Alabama Cooperative Extension System's resources.

Alternative energy sources are the focus of this summer 2007 issue of ECDI in Action. Mike Easterwood, senior outreach associate with ECDI, is the author for this topic.

The next issue of "Action," fall 2007, will highlight workforce education. For more information on these topics or suggestions for additional topics, contact the editor at (334) 844-3517, fax (334) 844-9022 or e-mail chesnjt@auburn.edu.

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Alternative Energy Sources: Options for Now and the Future

In recent years, economic and environmental concerns related to the use of fossil fuels have driven the search for alternative energy sources. Alternative energy is energy derived from sources that do not use natural resources or harm the environment.

Historically, the United States has relied upon fossil fuels to meet its energy needs, primarily in the form of oil-, coal-, natural gas- and fossil fuel-generated electricity. This approach served the nation and its economy well for many years. However, several factors have combined to make continued reliance on fossil fuels, especially oil, as the basis for continued U.S. economic growth problematic. One key factor is that world oil reserves are concentrated in the Persian Gulf (about 65 percent of remaining oil reserves, according to the U.S. Department of Energy). The Department of Energy (DOE) estimates that the United States imports approximately 53 percent of its petroleum, much of it coming from Organization of Petroleum Exporting Countries (OPEC) located in the Persian Gulf. As demonstrated by the OPEC-driven oil shocks of the 1970s and 1980s, the U.S. economy is vulnerable to oil supply disruptions and associated oil-derived product price increases (primarily gasoline). According to the DOE, a future oil supply disruption could reduce U.S. economic activity by 2 percent annually for 3 or 4 years, totaling \$600 billion over a 3-year period.

Alternative energy sources are important because America's reliance on imported oil is quickly becoming a detriment to national security and a threat to continued economic growth. Such energy sources promote a healthier environment locally and globally.

Because of increasing concerns about the harmful environmental effects of greenhouse gas emissions (primarily from petroleum-powered vehicles) and the uncertainty associated with foreign oil supplies, the United States has been looking closely at alternative energy options. The primary alternative energy options under examination are combustible biofuels (gasoline and diesel); nonconventional oil derived from oil sands, shale, or bitumen; methanol; nuclear energy; and noncombustible fuel alternatives such as hydrogen fuel cells. Each of these options has pros and cons in terms of possible use as supplemental or replacement energy options for the United States.

Biofuels, such as ethanol and biodiesel, are alternative fuel options that feature blends of traditional fuels with various nontraditional alternatives. In the case of ethanol, the mixture is made from up to 85 percent nontraditional sources such as corn, grasses, sugar cane and animal wastes blended with gasoline. Ethanol in the United States is made primarily from corn grown in the Midwest and its availability is limited by the supply of corn, the number of processing plants that can blend the fuel and the number

(Continued on page 2)

of stations available for vehicle fueling. Auburn University is playing a leading role in developing alternatives to corn-blended ethanol. Dr. David Bransby and other Auburn researchers are examining the utility of other materials such as switchgrass and crop residues as alternatives to corn. Biodiesel is typically a mix of modified vegetable oils and diesel fuel. Soybean oil is commonly used, although hempseed, rapeseed oil, animal fats and recycled cooking grease have also been used. Almost any diesel-powered vehicle can use biodiesel B10 (10 percent alternative fuel) or B20 (20 percent alternative fuel) and there are currently more than 1,000 biodiesel fueling stations in the United States.

Nonconventional oil fuels are oil fuels derived from nontraditional oil sources such as tar sands, oil shale and bitumen. There are known reserves of such materials in several areas around the world, including the United States, Canada and Venezuela. The current mining process for these materials is energy intensive and has a larger affect on the environment than conventional oil production.

Methanol is produced from fossil fuels (natural gas and coal) and can be used to fuel internal combustion engines with minor modifications. It is highly toxic, volatile and produces harmful emissions that are expensive to clean up. Research has focused on blending methanol with gasoline and overcoming the disadvantages of using methanol as fuel. There are only a few methanol fueling stations in the United States, all located in California.

Nuclear energy could play a role as a source of energy for the production of electricity, replacing fossil fuels such as coal at electrical generating plants. However, the last new nuclear generating power unit in the United States was brought online in 1996. The issues to be overcome for increased nuclear energy utilization in the United States are the perceptions that nuclear energy poses serious environmental and public health concerns and questions about long-term storage problems for radioactive wastes.

Proponents of hydrogen energy use point to hydrogen fuel cells as a possible alternative fuel source. Hydrogen fuel cells and other

hydrogen-based technologies offer a potentially clean, flexible energy alternative. However, hydrogen to be used as a fuel must first be produced using another energy source. Hydrogen has a low-energy density and is expensive to transport. Research to overcome these and other obstacles continues at Auburn University and other organizations.

The U.S. Department of Energy projects that biofuels and other renewable energy sources will be a significant part of the nation's energy future. Although oil, coal and natural gas are expected to remain as the primary energy sources for the United States through 2030 (U.S. Department of Energy, Annual Energy Outlook 2007), the use of alternative energy sources should increase and become a larger percentage of overall energy production. The DOE and others emphasize that there is no "silver bullet" answer to addressing our nation's energy questions. However, alternative energy can play a substantial role in providing additional choices for the United States. Alabama is well positioned to be a key player in the alternative energy landscape. The state features an enormous base of biomass and animal waste resources in the form of timber (woody biomass), row crops (crops such as soybeans, as well as crop wastes), grasses (especially switchgrass), hay, poultry and other animal wastes. Alabama can be a major source of these biomass materials and thereby play a significant role in the nation's efforts to reduce reliance on imported fossil fuels by using more renewable energy sources.

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Resource Tools

Seven Steps to Achieving Grant Success

1) **Establish a team.** It's difficult and time consuming to write a grant proposal on your own. Therefore, developing a grant proposal should be a team effort with each member's responsibilities clearly defined. Each member of the team

has a role and should be a contributor to the grant proposal. For example, one member can assist with identifying stakeholders in the community, another member can write the actual proposal and other members can be responsible for the budget and assist with other cogent tasks as needed for the proposal.

2) **Develop an action file.** Every grant application will request similar background information about your organization. Having an action file will keep this pertinent information readily available for your grant proposal. Some items to keep in an action file might include copies of the history of the organization, names and addresses of the board of directors, articles of incorporation, bylaws, 501(c)(3) tax exemption letter, resumes, job descriptions, organizational charts, program budgets, audited financial statements, indirect cost rate agreements, maps, pictures, newspaper articles and program flow charts.

3) Search for the right fit. One of the most difficult aspects of soliciting funding is searching for the best funding source. This can be a tedious and time consuming process to wade through the myriad of federal, state, corporate and private foundations. When seeking funding, it is important to realize that your program (organizational mission) needs to fit the funding priorities of the grant-making agency. Also, keep in mind that corporations and foundations tend to target grant projects in specific regions. Some places to begin your search are the Federal Register http://www.access.gpo.gov/su_docs/aces/fr-cont.html; Grants.gov <http://www.grants.gov/>; Foundation Center <http://foundationcenter.org/findfunders/>; Grantsmanship Center <http://tgci.com>; and Alabama Giving <http://www.alabamagiving.org>.

4) **Contact the funding agency.** Some grant application instructions are ambiguous. One of the first things you want to do is to call the funding agency's contact person (program officer) and ask them your questions directly. Don't ask vague questions about the fundability of a project. Do ask for clarification on the agency's criteria used for evaluating proposals. This is also a great opportunity to provide information of your program and to build a relationship with the funding agency.

5) **Write the proposal.** The most important point to remember is to follow directions. This sounds simple, but, in many cases, individuals do not follow the instructions of the request for proposal (RFP) and as a result, their proposals are rejected. The elements of a typical proposal are the following: cover letter, introduction, problem statement, program goals and methods, dissemination, evaluation, budget and attachments. Clearly answer all of the questions stated in each section of the RFP. A successful proposal is one that is thoughtfully planned, well prepared and concisely packaged.

6) **Edit and submit the proposal.** Once the proposal is written, allow others to read the proposal and make the appropriate changes. Next, you must submit the proposal. Send the proposal to the appropriate location by the required date. Again, follow the directions of the RFP.

7) **Follow up.** Now that you have your proposal written and submitted, you should always follow up with the funding agency. Make sure the funding agency received your proposal. If your proposal is funded, then you will be required to sign an agreement letter (contract) and begin your program. If your program is not funded, ask why your program didn't meet the agency's priorities, and if they

can recommend any changes to increase the fundability of your proposed project. Make the recommended changes and resubmit your proposal during the next funding cycle.

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What's Happening in Alabama

47 Projects Funded by the Rural Alabama Initiative

The purpose of the Rural Alabama Initiative is to provide financial support for educational projects that encourage rural development. The Alabama Cooperative Extension System funds this initiative and ECDI administers it. Projects funded are as follows:

1. Leadership Talladega
2. Leadership Greene
3. Leadership Winston County
4. Black Belt Mayors Leadership Initiative
5. Blount County Rural Development Project
6. Bibb County Citizen Leadership and Engagement Program
7. Leadership Selma-Dallas County
8. Vision 13: Regional Leadership Skills Training for Cherokee, Cleburne, Clay, Randolph, Chambers, and Lee Counties
9. Leaders for Pike Road
10. Leadership Pickens
11. Educating Leaders: Town of Magnolia Springs
12. Gulf Coast LEADERS Program
13. Henry County Workforce and Leadership Academy
14. Leadership Development and Coalition Building for Rural Communities
15. Community Leadership Education Opportunity Resource Guide
16. Your Town Alabama 2007 Workshop
17. Artware: Using Art-based Learning to Help Youth and Adults Reach their Potential
18. Youth Leadership Bullock County
19. Youth Leadership Elmore County
20. Perry/Wilcox Youth Leadership Initiative
21. Youth Leadership Lawrence
22. Youth Leadership Lowndes County
23. Monroe County Youth Leadership Program
24. Town of Shorter: Renovate, Innovate, Explore (REI) Youth Leadership Program
25. Youth Leadership Shoals
26. Youth Leadership Shelby County
27. Camden Community Youth Leadership Program
28. Pine City Ambassadors: Jackson's Junior Leadership Program
29. Realize Your Potential: Lauderdale and Marion Counties
30. Follow-up Counseling and Assessment for Tree Amigos 4-H Youth
31. Butler Workforce and Development Program
32. Chambers County Workforce and Leadership Development
33. Retention of the 18-25 Year Old Workforce of the City of Fort Payne
34. Alabama BEST: Boosting Engineering, Science and Technology
35. Technology Camp for High School Counselors
36. Students Exploring the Workforce (SEW): Hale County
37. Computer Literacy Lab for Rural Adults (Coosa County)
38. Enhancement of Computer Usage of Rural Residents of Escambia County
39. Prattville-Autauga County Character Coalition
40. Pick Pickens for Peace and Prosperity
41. The Hallelujah Trail of Jackson County
42. Alabama Black Belt Heritage
43. Black Belt Treasures Folk Life Festival
44. Marengo County Economic Development Authority
45. Shelby County Small City I.D.
46. Economic Development: Limited Resource Farmers in Rural West Alabama
47. Regional Market Learning through Workshops and Practical Experience

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Alabama
Communities
in Transition

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Action is published once each quarter by the Alabama Cooperative Extension System.

We would like you to share success stories in your community for inclusion in future issues of *Action*. Send to: J. Thomas Chesnutt, 218 Extension Hall, Auburn University, Alabama 36849.

“Alabama Communities of Excellence” Recognized

Six communities were recently designated as “Alabama Communities of Excellence” after successfully completing the ACE program. The graduation ceremony took place Monday, April 23 during the Alabama League of Municipalities Annual Convention held in Huntsville. The cities of Atmore, Fayette, Gulf Shores, Heflin, Millbrook and Thomasville were recognized as Alabama Communities of Excellence and presented with a \$5,000 grant for a priority economic and community development project. Each community will also receive an “Alabama Community of Excellence” sign to be posted at the city’s gateway and a framed certificate signed by the Governor and the President of ACE.

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Visit the Community Resource Development home page at www.aces.edu/department/crd/



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