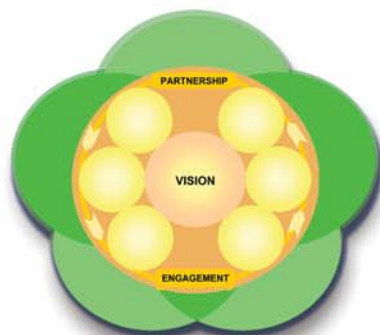


EERE-NASULGC

PARTNERSHIP OVERVIEW

A PROSPEROUS FUTURE WHERE ENERGY IS CLEAN, ABUNDANT, RELIABLE, AND AFFORDABLE





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Assistant Secretary
Office of Energy Efficiency and
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U.S. Department of Energy*



*C. Peter Magrath
President
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Universities and Land-Grant
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We are pleased with the continuing progress that is being made by this partnership between the Department of Energy and the National Association of State Universities and Land-Grant Colleges. The partnership shows great potential for leveraging our collective resources to better serve the public interest. We look forward to its continued endeavors to help develop and deploy energy technologies in collaboration with America's universities and land-grant colleges.

David Garman and Peter Magrath

This brochure provides an overview of the accomplishments of an emerging partnership that are a source of pride and inspiration. In the past year, five pilot projects were developed to expand access for energy researchers to the extension capabilities of state universities and land-grant colleges, and to benefit university faculty and students through collaboration with federal energy researchers. We are pleased to report that these pilots proved successful, and this success has encouraged us to expand our collaboration. The partnership is now moving toward the creation and implementation of a three-year collaborative agreement that will build on the successes of the pilot projects, both nationally and at the regional level. We are excited about the prospect of accomplishing even more together.

*James Fischer and Stan Johnson
(Partnership Directors)*



*Dr. James R. Fischer
Member-Board of Directors
Office of Energy Efficiency and
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*Dr. Stanley Johnson
Vice Provost for Extension
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Addressing Critical National Needs Both the Office of Energy Efficiency and Renewable Energy (EERE) at the Department of Energy (DOE) and the National Association of State Universities and Land-Grant Colleges (NASULGC) are working on issues of national prominence. EERE is pursuing its vision of a clean, prosperous energy future. Its mission is to lead the federal government's research, development, and deployment (RD&D) efforts in biomass, geothermal, solar, wind, building energy efficiency, and other renewable and energy efficiency technologies aimed at providing reliable, affordable, and environmentally sound energy supplies for America's future.

NASULGC's institutions have enabled many of the intellectual, material, and economic benefits enjoyed by the citizens of our nation. American higher education has a history of successful research and transfer of agricultural and other technologies at land-grant and other educational institutions, and a cooperative extension service that is renowned worldwide.

EERE and NASULGC have invested in developing strategic visions and roadmaps. Both are now seeking to engage other organizations with whom they can develop productive partnerships, and build integrated programs that will result in interactive and responsive organizations. And both are seeking to put critical resources to work on problems that communities and the nation face. Our alliance is a natural fit.

Idea for a New Partnership The seeds for a partnership between EERE and NASULGC were planted in the late 1990s by several EERE and NASULGC individuals, including Doug Faulkner, EERE's new Principal Deputy Assistant Secretary, and Dr. Stanley Johnson, Vice Provost for Extension at Iowa State University. They recognized that public colleges and universities are the only entities in the U.S. where teaching, research, and outreach programs involving renewable energy and energy efficiency could come together under "one roof" and, at the same time, connect to a national system of universities in each state to create a presence in every county in the U.S.

They proposed a partnership between EERE and NASULGC that would expand the working relationship between member institutions of NASULGC and DOE. This would create an opportunity for EERE to more cost-effectively carry out its mission to develop and disseminate



The overall EERE portfolio provides a combination of multiple renewable energy technologies — solar, wind, biomass, geothermal, and others — together with research and development of energy efficiency technologies. Shown: Department of Energy Headquarters (the Forrestal Building) in Washington, D.C.



A voluntary association of public universities, land-grant institutions, and many of the nation's public university systems, NASULGC campuses are located in all 50 states, U.S. territories, and the District of Columbia.

energy efficiency and renewable energy production technologies. It would also serve to enhance the research and education capacity of NASULGC institutions by allowing them to interact more closely with EERE's energy research and development programs and National Laboratories.

The Executive Steering Committee consists of representatives from both EERE/DOE and NASULGC. Its functions entail working with the five Project Leadership Teams and reporting to David Garman, DOE Assistant Secretary for Energy Efficiency and Renewable Energy, and Peter Magrath, President of NASULGC.

Bringing The Partnership to Life In January 2003, Peter Magrath, the President of NASULGC, and David Garman, DOE's Assistant Secretary for Energy Efficiency and Renewable Energy, met and agreed to collaborate and to develop and implement a new partnership model.

Dr. James Fischer (who has held previous faculty and administrative positions at Clemson, Michigan State, University of Missouri, and the U.S. Department of Agriculture (USDA)) was hired as a member of the EERE Board of Directors to help build the basis for cooperation with the NASULGC institutions and U.S. higher education more generally. President Peter Magrath designated the NASULGC Board on Agriculture Assembly (BAA) as the NASULGC entity to carry out the partnership. The BAA appointed a committee to coordinate with Dr. Fischer in developing a program of action that would achieve the objectives of the EERE/NASULGC agreement for expanded cooperation. The concept was developed that described a future where the capacities of universities and DOE could be matched in critical areas, to help provide all citizens, including farmers and other rural Americans, with clean, affordable, and bountiful energy. EERE and NASULGC could help bring about this future, it was proposed, by working together to build a partnership. Following the development of this concept, a formal proposal was developed and submitted for consideration. In January of 2004,

the formal proposal for five one-year joint pilot projects (described in the table on *FY04 Accomplishments*) was accepted, and in February 2004, the first meeting of the new partnership was conducted.

FY 2004 Partnership EERE and NASULGC engaged in a collaborative partnership-building activity in fiscal year 2004 (FY04) through joint participation on Leadership Teams for each of the five pilot projects. The intent of this collaboration was to provide access to extension and outreach systems for delivering products and services of the EERE research and development programs, to develop partnerships in research that would increase the productivity of EERE and NASULGC-affiliated institutions' research programs, and to explore the potential for energy curriculum development.

For NASULGC, the benefits of collaborating with EERE include helping its member universities increase their responsiveness and relevance to the practical, current problems of society, and to provide opportunities for faculty and students to gain access to research and new knowledge. In addition, new opportunities for the university Extension programs were explored and discussed by representatives from NASULGC with a Task Force that had been assembled by EERE to examine the deployment of energy efficiency and renewable energy technologies.



Executive Steering Committee members discussing the progress and future direction of the EERE/NASULGC partnership at the January 25, 2005 meeting.



DOE scientists and university Extension officials met together in workshops on energy-efficient housing to disseminate the DOE Building America “Best Practices Guide” to building contractors. (Project 2-A)

Overall management for the pilot year partnership has been provided by a 10-person Executive Steering Committee, consisting of key executives from EERE and NASULGC. Leadership for each of the projects has been provided by a Project Leadership Team consisting of senior-level managers from both organizations. Nine EERE personnel and one staff member from the National Renewable Energy Laboratory (NREL), as well as 10 NASULGC personnel, consisting of representatives from NASULGC, the Agricultural Experiment Station, and/or Extension Directors Regional Associations, have served on project leadership teams.

Teleconferencing has enabled team members to conduct partnership business from locations across the U.S. A project tracking system has been established to monitor the status of the projects. Communication was further enhanced by development of a Web site – <http://www.ncfap.org/specialprojects>. Requested white papers defined potential roles for Extension in energy deployment. Highlights from

all of the five projects that have helped to lead the successful development of this emerging, synergistic partnership are presented in the table on *FY04 Accomplishments*.

Next Steps: Moving Toward A Three-Year Collaborative Agreement This emerging partnership is now in the process of developing a three-year collaborative agreement, in order to build on successful accomplishments in FY04 and to enhance the pursuit of EERE’s and NASULGC’s respective missions. While this will initially be a three-year effort, it is envisioned as a longer-term initiative that would achieve significant integration into programs and regional organizations. A detailed listing of activities for FY05 is presented in the table *FY05 Project Activities to Fulfill Objectives*.

Project	FY04 Accomplishments
(1) Expanding the Opportunities for Cooperation and Communications between NASULGC and DOE/EERE	<ul style="list-style-type: none"> ■ Over 30 presentations concerning EERE and NASULGC activities and capacities. ■ Two articles published and a Web site established outlining partnership goals and developments. ■ Searchable resume database (Autonomy) containing resumes from faculty at NASULGC institutions who are willing to serve on peer panels, advisory boards, etc. is in the development stage. ■ Databases for contacting researchers and extension personnel at NASULGC-affiliated institutions expanded and made more useable for making DOE/EERE contacts. ■ Two administrators from NASULGC universities appointed to Advisory Boards and several faculty identified to serve on peer review panels.
(2) Use of Extension and Outreach Systems for the Dissemination and Delivery of DOE/EERE Products and Services	<ul style="list-style-type: none"> ■ Faculty from seven universities participated with EERE's Building America program on residential housing. ■ EERE Building America program (Building Sciences Corporation) conducted three-day workshop for faculty. ■ Faculty used Building America Best Practices Guide as base material for educational programs in their respective states with feedback to the EERE Building America program. ■ Three white papers written on the following topics: <ul style="list-style-type: none"> • how a demonstration house can incorporate best energy efficiency practices and be a tool in educational work • the value added of an Extension Partnership with other agencies, and • an overview of the components of high-performance housing. ■ Four states in the Pacific Northwest — Alaska, Washington, Oregon, and Idaho — along with Kentucky are joining forces to train local extension educators about alternative energy sources and the economic advantages that these sources may provide small/rural communities and the ability of these communities to attract new business and industry.
(3) Youth Education in Science & Technology	<ul style="list-style-type: none"> ■ The technology selected for trial was supplied by EERE and the National Energy Education Development (NEED), and focused on the "science and energy of light and lighting." ■ Youth educators from seven states were trained in Washington, DC on the curriculum during a two-day period (June 2004). ■ The curriculum was taught in the 4-H After-School Program over a period of three weeks after the beginning of the academic year (September and October). ■ The process showed that the new content could be easily introduced into the curriculum and was manageable by the 4-H professionals. ■ The learning outcomes were impressive, with almost all participants taking away from the sessions the main ideas and concepts.
(4) Engaging the Research Capacities of the Universities and State Colleges	<p>Summary of findings of a survey included:</p> <ul style="list-style-type: none"> ■ Universities can account for funds received from DOE, but not from a sub-agency within DOE; re: EERE. ■ 87% of the research VPs indicated that they had not experienced any difficulty in reaching agreement with DOE on terms and conditions for the handling of IP. ■ 28% of the university VPs had concerns relative to the time of notification from DOE relative to deadlines. ■ Institutional capacity to respond to DOE grants could result from the following: <ul style="list-style-type: none"> • limited faculty with an interest in energy-related topics, • a lack of alignment of DOE programs with SAES/university research capacity, • the general overall shrinkage of university research faculty, • a lack of a critical mass of faculty to address DOE/EERE priorities, and • the cost-sharing requirements imposed by DOE. ■ Universities subscribe to various services to keep their faculty informed of grant opportunities. Most popular were the "Community of Science" service, while some noted that they used FedBiz.opp, or Sponsored Research Information Network (SPIN). ■ Most effective way to solicit and/or notify universities of opportunities for collaborative research awards from DOE was e-mail notifications directly to faculty, deans, and directors. ■ Analysis of the USDA Cooperative Research Information System (CRIS) Portfolio for energy-related research identified: <ul style="list-style-type: none"> • 16 ARS projects, • 2 multi-state projects, and • 76 individual investigator Hatch projects.
(5) Workshops at the DOE Labs for Scientists from the NASULGC-Affiliated Institutions	<ul style="list-style-type: none"> ■ Workshop held at National Renewable Energy Laboratory. Participation included 50 universities, 56 participants for biomass, 26 for solar energy, and 2 Native American serving institutions and 12 Historically Black Colleges and Universities (HBCUs).

Objectives	FY05 Project Activities to Fulfill Objectives
(1) Enhancing EERE program impact by increasing the working relationship between NASULGC regional associations and EERE regional offices	<p>Proposes to link EERE regional offices with the well-developed Cooperative Extension Service networks of offices and technical staff in all U.S. counties to deliver renewable energy education programs.</p> <p>Why?</p> <ul style="list-style-type: none"> ■ Builds on 2004 Project 2, which piloted a program utilizing the capacity of the extension system to deliver selected EERE services. ■ As result of 2004 Project 2, we learned there are many varied energy activities throughout the Cooperative Extension System. ■ Proposed activities capitalize on existing Extension energy activities and the interest expressed in 2004 Project 2's initial planning efforts. <p>Process:</p> <ul style="list-style-type: none"> ■ Organize a national training session to prepare trainers for the regional sessions that will follow. NASULGC institutions with the EERE regions and their state energy offices will send staff and faculty to participate in the regional trainings — up to five will be trained per state.
(2) Institutionalizing the Extension outreach capacity in EERE programs	<p>Proposes expanded partnership-building between EERE programs and the Land-Grants extension system, specifically the Building America program.</p> <p>Why?</p> <ul style="list-style-type: none"> ■ Builds on success of 2004 Project 2 where Building America Extension faculty demonstrated successful outreach activities in each EERE region and established working relationships with the Building America personnel and teams. <p>Process:</p> <ul style="list-style-type: none"> ■ Expands the number of participating universities. ■ Program efforts can be developed at the regional office level where teams will also plan and conduct in each region "Train-the-trainers" workshops for Cooperative Extension personnel relevant to the Building America program's goals and objectives.
(3) Increase public education about energy by augmenting youth education in science and math with EERE-related interactive modules	<p>Proposes to build on youth education activities in science and education working with 4-H and NEED.</p> <p>Why?</p> <ul style="list-style-type: none"> ■ Builds on the youth education in science and technology work of FY04. <p>Process:</p> <ul style="list-style-type: none"> ■ Continue to work with 4-H Council and NEED in the After-School Program with possible expansion to other programs areas including the club, camping, and other major programs. ■ Increase the number of educational modules to at least six.
(4) Expanding the joint university/EERE lab workshops to all EERE program areas	<p>Proposes to expand mechanisms that enhance the interactions between NASULGC institutions and the National Laboratories.</p> <p>Why?</p> <ul style="list-style-type: none"> ■ Builds and extends activities from Project 5 in FY04. <p>Process:</p> <ul style="list-style-type: none"> ■ Facilitate two additional meetings with the DOE Labs that are designed to bring together faculty from the NASULGC-affiliated institutions and scientists and engineers from the Labs. ■ One of the training sessions will be at a DOE Lab not under EERE. ■ There is also interest in USDA hosting one of these sessions.
(5) Developing methods to improve the formal exchange between EERE scientists/ engineers and university faculty	<p>Proposes to increase scientist-to-scientist interactions within EERE and NASULGC institutions.</p> <p>Why?</p> <ul style="list-style-type: none"> ■ Need became apparent in last year's pilot activities. <p>Process:</p> <ul style="list-style-type: none"> ■ There are numerous ways to increase these interactions such as sabbaticals, Interagency Personnel Agreements (IPAs), etc. ■ In FY05, the project will work with DOE's National Renewable Energy Laboratory to develop a strategic process for increasing scientist-to-scientist interactions within EERE and NASULGC institutions.

Executive Steering Committee Members

DOE/EERE

Doug Faulkner, Principal Deputy Assistant Secretary
Richard Moorer, Deputy Assistant Secretary for Technology Development
John Sullivan, Deputy Assistant Secretary for Business Administration
James Fischer, Senior Technical Advisor (Academe), Board of Directors
Mike Mills, Executive Liaison, Board of Directors

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Mary Spruill, National Energy Education Development (NEED)

Project Activity 4 – Laboratory/University Interaction

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H. Michael Harrington, Western Association (AES)
Bob Shelton, Oak Ridge National Laboratory
Eric Young, Southern Association (AES)

Project Activity 5 – Scientist/Engineers Exchange

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Steve Lee, EERE
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www.ncfap.org/specialprojects

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Project Activity 3 – 4-H/Youth Development

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May 2005