

Memorandum of Understanding Between
The National Rural Electric Cooperative Association
and The U.S. Department of Agriculture

This Memorandum of Understanding (MOU) is a voluntary agreement between the National Rural Electric Cooperative Association (NRECA) and the U.S. Department of Agriculture (USDA) to identify and advance jointly cost-effective, voluntary opportunities for electric cooperatives to help achieve the President's goal to reduce the greenhouse gas intensity of the United States economy by 18 percent by 2012. This agreement establishes a public-private partnership between NRECA and USDA under the President's Climate VISION (Voluntary Innovative Sector Initiatives: Opportunities Now).

This MOU builds on the substantial actions that the Parties have taken to ensure the availability of clean, efficient electricity generation to the nation's rural electric consumers and expands that commitment to new, clean energy technologies, actions, and activities that will reduce the economy's greenhouse gas intensity and sustain economic growth.

I. PURPOSE AND SCOPE

- A. The purpose of this MOU is to explore new areas for cooperation on the identification, development, and deployment of greenhouse gas emission-efficient actions, activities, and technologies suitable for electric cooperatives. Each Party may contribute to this effort through appropriate means, including, but not limited to, research, joint projects, program coordination, information sharing, sharing of relevant expertise, and coordinated education and outreach.
- B. The scope of the actions, activities, or technologies covered by this MOU includes all sectors of the economy that reduce, avoid or sequester greenhouse gases, thereby slowing the growth of these emissions. Potential areas of cooperation may include, but are not limited to, efficient use of energy, renewable technologies for energy generation, continued development and demonstration of new, emission-efficient technologies such as fuel cells and microturbines, identification of options for reducing technical and market barriers to the use of renewable energy, and biobased energy and products.

II. GENERAL PRINCIPLES

- A. The Parties recognize that the primary responsibility of NRECA is to support and assist consumer-owned not-for-profit electric utilities in achieving access to reliable, affordable and safe electric power.

- B. The Parties recognize that the competitive situations of electric cooperatives are changing with regard to electric utility restructuring and energy and environmental regulation at the Federal, State, and local level. Cooperative-specific circumstances such as fuel mix and resources, customers served per mile of line, geography, growth, and financial resources are important considerations in evaluating emission-efficient options and opportunities.
- C. Electric cooperatives promote economic growth and business development in the communities they serve. Actions and activities under consideration to slow the growth of greenhouse gas emissions must also sustain economic growth in rural communities. All other things being equal, opportunities that supply cost-effective and scientifically demonstrable environmental and economic benefits to rural communities and cooperative members should receive emphasis.

III. NRECA ACTIONS

- A. NRECA will establish a coordinating committee to facilitate implementation of the MOU and designate a chair to be the liaison to USDA. Committee activities shall include identifying and reviewing potential collaborative efforts, coordinating those efforts with USDA, and disseminating information to electric cooperatives.
- B. NRECA will assist member cooperatives toward a goal of increased use of renewable technologies for electricity generation. Such technologies include biomass co-fired power plants, biomass gasification power plants, animal waste-to-electricity using anaerobic digesters and gasification, landfill methane power plants, and increased use of wind and solar energy.
- C. NRECA will continue research, development, and demonstration of new, more efficient, lower emission technologies, such as fuel cell microturbines, and hydrogen production from bio syngas, and will seek ways to cooperate with USDA. Potential areas of collaboration with USDA include:
 - 1. Demonstration of fuel-flexible generators, such as fuel cells, for biomass and waste products, including ethanol, at cooperative sites.
 - 2. Demonstration of low-Btu microturbines (Flex-Microturbine) on a variety of biomass feedstocks (pecan nutshells and/or wood waste).
 - 3. Application of biopower decision tools, which provide a "turbo-tax" approach to developing a biopower business plan, to additional case studies and support of their dissemination via Internet and other means.

4. Development of business cases for generic cooperatives based on field-test models to be obtained from animal-waste-to-electricity studies.
 5. Investigation of the microgrid concept for rural utility operation of clusters of biomass-based distributed power sources and storage, either independently or in parallel with the grid.
 6. Investigation of the impact of large numbers of biomass-based distributed power sources in rural utility settings.
- D. NRECA will continue to support the development of industry standards for the interconnection of distributed generation to the electricity grid and innovative approaches to the integration of renewable energy sources. In addition, NRECA will evaluate options for reducing technical and market barriers to the use of renewable energy and distributed generation.
- E. NRECA will research, develop, promote and encourage greater cooperative use of biobased products such as biodiesel, ethanol, lubricants, and solvents.

VI. USDA ACTIONS

- A. USDA will designate an individual as the representative of the Secretary to coordinate with NRECA on the implementation of the MOU.
- B. USDA will work with NRECA and other agencies of the Federal government to identify researchable needs, to develop technology that meets those needs and reduces greenhouse gas emissions, including promising new emission-efficient and renewable energy hydrogen and fuel cell technologies for rural communities and agricultural producers, and to identify and remove technical and market barriers to adoption of these new technologies.
- C. USDA will cooperate with NRECA to develop education and outreach materials, workshops, and programs that will provide technical and economic information on renewable technologies, distributed generation and interconnection issues, emerging low emission technologies, and biobased product information, such as content, environmental performance, and other performance standards.
- D. USDA will seek to make available technical support, and other assistance and incentives, to the electric cooperatives and farmers for reducing, avoiding, and sequestering greenhouse gas emissions, consistent with USDA authorities and appropriations.

V. GENERAL PROVISIONS

- A. Participation in this MOU does not constitute NRECA endorsement of any particular policies with respect to energy or environment.
- B. This MOU can be modified only by means of a document signed by both Parties.
- C. Either Party may terminate this MOU at any time, for any reason, with no penalty.
- D. This is a voluntary agreement that expresses the good-faith intentions of the Parties and is not intended to establish any legal obligations for the Parties.

As representatives of the USDA and the NRECA, we, the undersigned, do hereby execute this Memorandum of Understanding.

For the U. S. Department of Agriculture:

Signature:  Date: October 22, 2003

Name: Ann M. Veneman
Title: Secretary

For the National Rural Electric Cooperative Association

Signature:  Date: 10-22-03

Name: Glenn English
Title: Chief Executive Officer