

Project Summary

The Nebraska Energy Office proposes to create a State Energy Extension Partnership with the University of NE-Lincoln (UNL Extension) to enhance adoption of energy efficiency practices. The **Nebraska Energy Extension Partnership – Agricultural Efficiency Nexus: Energy, Water, and Food** will establish a framework using the following objectives:

- Establishing a partnership between the Energy Office and UNL Extension to identify opportunities to enhance the knowledge and adoption of energy efficiency and renewable energy systems, tools, technologies and business practices to reduce the use of energy in homes, businesses, farms, and ranches through a series of technical assistance, transformational education, and agriculture-based demonstration and pilot projects.
- Expanding the [Nebraska Agricultural Water Management Demonstration Network](#) to include a co-benefit of quantified water and energy savings and extend technical assistance and transformational educational programming to 100 new cooperating producers resulting in savings of more than 650,000 gallons of diesel fuel annually.
- Developing an energy and efficiency rating system for irrigation components modeled after ENERGY STAR® and increasing awareness of the benefits of purchasing energy efficient equipment for agricultural purposes.
- Augment the State’s existing capacity to provide training and education on the recently adopted 2009 International Energy Conservation Code and residential weatherization assistance by coordinating with UNL Extension to implement transformational education methods across the State of Nebraska.

Nebraska’s Partnership will benefit from the synergy of collaboration that comes from the merging of the policy, educational, and science expertise that the partners possess. The initial partnership targets the following priority issues from the Funding Opportunity Announcement:

- Demonstration projects addressing efficient energy use and conservation;
- On-farm agricultural conservation, energy audits, and energy use in the production of food and fiber;
- State building code training; and,
- Residential/home energy weatherization.

The collaborative effort will include improved communication and planning between the Energy Office and UNL Extension who serve as the primary partners to develop a Nebraska Partnership strategy. One of the major projects will expand on the successful demonstration project, the Nebraska Agricultural Water Management Demonstration Network that demonstrates and teaches farmers how to use modern sensors and other soil moisture and crop water use measuring devices to improve irrigation management. Under this partnership, the project will be expanded to add quantifiable energy savings as a co-benefit with water usage and will add 100 new producers. Another major project will design a pilot program for an energy use and efficiency rating system for irrigation components modeled after the existing ENERGY STAR® program. The proposal also includes training, education, and outreach for Nebraska’s 2009 International Energy Conservation Code and Weatherization Assistance Program.

The strategy will focus on leveraging existing state and federal energy program resources increasing energy efficiency through educational projects and learning activities that will increase transformational behavior change in Nebraska communities, local governments, businesses, farms, and individuals. Project activities will integrate a continuum of outreach, educational media, technical assistance, training, workshops, and educational experiences to meet overall outcomes including, but not limited to:

- a. Reduce the use of energy in homes and businesses;
- b. Increase the number of homes and businesses that utilize emerging energy technologies;
- c. Increase consumer awareness of energy issues when making large and small purchases; and,
- d. Increase compliance with the current building energy code.