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## ACEE'S 2ND FORUM ON ENERGY EFFICIENCY IN AGRICULTURE

**Food and Energy from the Ground Up:  
Efficiency's Role in Sustainable Agriculture**

Embassy Suites Hotel • Des Moines, Iowa • February 20 – 22, 2008

### PROGRAM

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#### Wednesday, February 20

12:00 PM – 5:00 PM **Area Site Visits**  
**Lincoln Way Energy, LLC** – A 50+ million gallon/year dry mill ethanol plant  
**BECON Facility** – The Iowa Energy Center's Biomass Energy CONVersion facility

5:00 PM – 8:00 PM **Registration (Ballroom Lobby)**

6:00 PM – 8:00 PM **Welcoming Reception (Salon E)**

**Plenary: Regional Round-Up: Energy Challenges and Opportunities for Agriculture**  
Perspectives from around the U.S. on the intersection of energy and agriculture will illuminate the work being done on a regional level to meet the challenges posed by increased demand for energy. Presenters will share their on-the-ground experiences with integrating the sometimes conflicting needs of the agricultural and energy communities.

*Moderator: **Glee Murray**, American Council for an Energy-Efficient Economy*

**John Bonitz**, Southern Alliance for Clean Energy  
**Tom Potter**, Southwest Energy Efficiency Project  
**Dave Sjoding**, Washington State University Energy Program

#### Thursday, February 21

7:00 AM – 8:30 AM **Breakfast** - Embassy Suites Hotel guests can enjoy a complimentary cooked-to-order breakfast

7:30 AM **Registration (Ballroom Lobby)**

8:30 AM – 10:15 AM **Introductions and Opening Plenary (Salon D)**

Welcome by **Iowa Governor Chet Culver**

*Energy Efficiency through Rural Development*  
**Mark Reisinger**, State Director for Iowa, USDA, RD

*The Footprint of Our Food: A Lifecycle Approach*  
**Sarah Murray**, author of *Moveable Feasts*

*Sustainable Agriculture: What's Energy Got to Do with It?*  
**Dennis Olson**, National Campaign for Sustainable Agriculture

10:15 AM – 10:45 AM **Break – Info Fair Open (Junior Ballroom)**

**Ia (Salon A) – Energy Efficiency and Biofuels: A National Policy that Makes Sense?**

Peak oil is just around the corner and America needs to find an energy source that is efficiently produced and viable to meet its agricultural needs. Current state and federal policies have started a veritable bonanza in ethanol production. However, the rush to ethanol has largely ignored questions such as whether biofuels can be produced efficiently, or is the net energy balance of biofuels at or near zero? This panel will explore whether biofuels can produce an efficient alternative.

*Moderator: **Jack Sautter**, Institute for Energy and the Environment, Vermont Law School*

*How to Increase the Efficiency of Ethanol Production*  
**Dick Munson**, Recycled Energy Development

*The Energy Bill of 2007: Effects and Consequences on Ethanol Policy*  
**Dulce Fernandes**, Network for New Energy Choices

**Henry Henderson**, Natural Resources Defense Council

**Ib (Salon B) – Successful 9006 Energy Efficiency Grant Applications**

The 2002 Farm Bill created the Renewable Energy Systems and Energy Efficiency Improvements Program, also known as "Section 9006." This successful program provides grants and loan guarantees and has spurred hundreds of new clean energy projects in nearly every state. Expanded funding for 2008 provides new opportunities to directly implement clean energy technologies. Our panelists will provide an introduction and tips for successful applications.

*Organizers: **Tony Harvey** and **Mark Kingland**, Alliant Energy*

*Overview and Introduction to Section 9006*  
**Andy Olsen** (moderator), Environmental Law and Policy Center

*Proven Approaches for Successful 9006 Grant Writing*  
**Brad Oeltjenbruns**, Ebenezer Management LLC

*Implementing Ag Energy Efficiency with Section 9006*  
**Mark Kingland**, Alliant Energy

**Ic (Salon C) – Food Miles**

How well does the concept of food miles capture the energy and carbon implications of U.S. food systems? This session will explore the conceptual and methodological development of the concept of food miles and discuss what we've learned about the energy implications of local, organic, and conventional food systems.

*Organizers: **Karen Ehrhardt-Martinez** (moderator) and **Therese Langer**, American Council for an Energy-Efficient Economy*

*The Evolution of Food Miles and its Limitations as an Indicator of Energy Use and Climate Impact*  
**Rich Pirog**, Leopold Center, Iowa State University

*Measuring Energy Intensity and Greenhouse Gas Emissions in the Food System Using a Life Cycle Assessment Approach*  
**Sonja Brodt**, University of California, Davis

*The Economics of Localness – the Consumption Side of Local*  
**Mallory Smith**, Buy Fresh Buy Local

12:00 PM – 1:15 PM **Lunch (Salons F-H)**

1:15 PM – 2:45 PM **Breakout Sessions V**

**Va (Salon A) – Rural Cooperatives and Agricultural Energy Efficiency**

Rural Electric Cooperatives (RECs) provide power to agricultural members across America, serving 75% of the land mass. As not-for-profit, member-owned organizations, RECs are guided by core values that include a commitment to service, and have a long history of assisting their members in electrical energy efficiency. This session will feature tools and programs being used by RECs at the national, regional and local level.

*Moderator: **Claudia Smith**, Central Iowa Power Cooperative*

*Touchstone Energy Cooperative's Energy Efficiency Edge*  
**Tim Sullivan**, National Rural Electric Cooperative Association

*Rural Cooperatives and Agricultural Energy Efficiency*  
**Paul Gillis**, GEN~SYS Energy

*Efficiency Investment and Opportunities for Iowa's Electric Cooperatives*  
**Regi Goodale**, Iowa Association of Electric Cooperatives

**Vb (Salon B) – Energy Crops: Environmental and Ethical Limits**

To what extent can new forms of bioenergy meet US and world energy needs? This session will explore the possible environmental and social limits we will encounter as we begin exploiting the full bioenergy potential of our agricultural lands.

**Doug Karlen**, USDA-ARS, National Soil Tilth Laboratory and Iowa State University

*Fueling the Future through Energy Crops: What are the costs? Who pays? Do we care?*  
**Tim Kautza**, National Catholic Rural Life Conference

*Building a Sustainable Bioeconomy - A Path Forward for our Existing Industries, and for Emerging Approaches*  
**Brendan Jordan**, Great Plains Institute

2:45 PM – 4:15 PM **Closing Plenary (Salons F-H) – Next Steps: Ideas for a More Energy-Efficient Food System**

The closing session will feature feedback and discussion by conference participants regarding what they have learned during the conference and ideas for future action in the following six areas: farming, on-farm energy production, carbon sequestration, food processing, food transportation, and consumer behavior.

*Moderators: **Rich Hackner**, GDS Associates and Wisconsin Focus on Energy, and **Mike Morris**, National Center for Appropriate Technology*

Panel Participants: **Tony Frank**, Rocky Mountain Farmers Union, **Glee Murray**, American Council for an Energy-Efficient Economy, and **Andy Olsen**, Environmental Law and Policy Center. Additional panelists TBD.

4:15 PM

**Conference Ends**

10:30 – 12:00 noon **Breakout Sessions IV**

**IVa (Salon A) – Producing On-Site Biofuels Efficiently: How to Produce Biofuels on the Farm for On-Site Consumption**

Speakers will discuss their own operations including ethanol and biodiesel produced from corn, soy, beets, and waste vegetable oil. The session will also cover production and sale of co-products for animal feed.

*Organizers: **Laura Furrey** (moderator) and **Sara Kelly**, Institute for Energy and the Environment, Vermont Law School*

*The On-Farm Process of Producing Biodiesel from Oil Seed Trials to Retrofitting Tractors*  
**John Williamson**, State Line Farm

*On-Site Production of Ethanol for Use in the Creation of Biodiesel*  
**Maria “Mark” Alover**, author, *Biodiesel Homebrew Guide*

*Current Feedstock Economics and Producing Usable Co-Products from Oilseeds*  
**Jamie Derr**, Great Lakes Biofuels

*Comments on the Small Scale Biodiesel Industry in General and Techniques for Saving Energy in the Production Processes*  
**John Bonitz**, Southern Alliance for Clean Energy

**IVb (Salon B) – Farm Energy Audits**

This session will explain what farm energy audits are, define some challenges to implementing energy audits, and discuss some tools and funding opportunities to help more farmers benefit from energy efficiency audits.

*Organizers: **Amelia Gulkis** and **Craig Metz** (moderator), EnSave*

*Farm Energy Audits: Challenges and Opportunities*  
**Amelia Gulkis**, EnSave

*On-Line Farm Energy Assessment*  
**Jennifer Brinker**, GDS Associates

*Section 9006 Energy Program*  
**Teresa Bomhoff**, Iowa Rural Development

**IVc (Salon C) – Produce Local, Consume Local**

When we speak of local ownership or buying local, what do we really mean and in what ways does localness matter—and not matter—to the public and to policy makers? This session will address concerns about the implications of the local food movement, where we are lacking in infrastructure and how we can grow this movement sustainably.

*Moderator: **Tara Rainstrom**, New York State Energy Research and Development Authority*

*What is Local?*  
**Neil Hamilton**, Drake Law School

*Local Food Systems – the Production Side of Local*  
**Patrick Garrity**, Floyd Boulevard Local Foods Market

*Global Oil Depletion, Food Miles and Life Cycle Assessment for Several New York Grown and Imported Crops*

**William Reinhardt**, New York State Energy Research and Development Authority

12:15 PM – 1:45 PM **Luncheon Plenary (Salon D)**

**Role of Agriculture in Achieving Energy Independence**

Several states have recognized the increasing importance of energy use and supply to their economy. In particular, Iowa and Wisconsin, two states with few conventional energy sources, recently established Offices of Energy Independence that report to their respective governor's office. Representatives from these offices will outline key strategies to achieving greater energy independence.

*Moderator: **Rich Hackner**, GDS Associates*

**Roya Stanley**, Iowa Office of Energy Independence  
**David Jenkins**, Wisconsin Office of Energy Independence

1:45 PM – 2:15 PM **Break - Info Fair Open (Junior Ballroom)**

2:15 PM – 3:45 PM **Breakout Sessions II**

**Ila (Salon A) – Best Utility Program Practices – Roundtable**

The past few years have seen a renewed interest in rural energy efficiency programs. This roundtable of experts will discuss challenges they have faced in this market and aspects of their programs that have contributed to their success.

*Moderator: **R. Neal Elliott**, American Council for an Energy-Efficient Economy*

*A Trans-Continental View of Ag Energy Efficiency Program Strategies*  
**Craig Metz**, EnSave

*Ag Energy Efficiency Partnerships: A Utility Perspective*  
**Patsy Dugger**, Pacific Gas & Electric

*Effective State Ag Efficiency Programs*  
**Jessica Zweig**, New York State Energy Research and Development Authority

**Ilb (Salon B) – Managing Energy in Crop Production Systems**

Modern agriculture is heavily dependent on fossil fuels. This panel will explore innovative ways to manage energy on farms, including both energy efficiency measures and ways to incorporate renewable energy into farming operations.

*Moderator: **Mike Morris**, National Center for Appropriate Technology*

*New Analysis of Data from the Sunshine Farm*  
**Aaron Wolf Baum**, consultant with the Land Institute

*Does Organic Farming Use Less Energy?*  
**David Granatstein**, Center for Sustaining Agriculture and Natural Resources, Washington State University

*Energy Efficiency in Small Scale Market Crop Production Systems*  
**Steve Moore**, Center for Environmental Farming Systems

**IIc (Salon C) – Animal Waste to Biogas - Can this be a Significant Energy Resource for the Nation?** *(Panel Discussion)*

A brief overview of animal waste based-biogas production using anaerobic digestion technologies will be followed by an open discussion with the moderator. Audience questions will be encouraged. Topics of discussion will include technology, economics, environmental benefits, technical potential and policy support for converting agricultural waste products into various forms of useful energy while reducing odors and greenhouse gas emissions.

*Moderator: Ricardo Amon, California Energy Commission*

**Jim Bodensteiner**, Iowa Department of Natural Resources  
**John Cuffica**, Midwest CHP Application Center, University of Illinois, Chicago  
**Mark Hall**, Environmental Power

3:45 PM – 4:15 PM **Break - Info Fair Open (Junior Ballroom)**

4:15 PM – 5:45 PM **Breakout Sessions III**

**IIIa (Salon A) – Economic Development: The Role of New Energy Sources and Efficiency**

How do energy and the economy relate to one another? This session will explore the link between energy and the economy, the economics of new energy production, and a hopeful long-term path for energy and economic development.

*Economic Development and Energy: What Role to Energy, Energy Efficiency, and New Energy Sources Play in the Economy?*

**William D. Walker** (moderator), Wisconsin Department of Agriculture, Trade and Consumer Protection

*Sorting the Wheat from the Chaff: Identifying the Economic Gains and Offsets of Emerging Energy Developments*

**David Swenson**, Iowa State University

*Ammonia: Providing the Best Path to a Hydrogen Economy*

**Norman K. Olson**, Iowa Energy Center

**IIIb (Salon B) – Carbon Markets for Agriculture**

This session will provide an overview of potential revenue streams from agricultural carbon offsets including minimum till farming, managed rangeland, and methane trapping. In addition, the session will provide details for trading credits today on the Chicago Climate Exchange and future tools being developed to support farmers with this emerging market opportunity.

*Moderator: Tony Frank, Rocky Mountain Farmers Union*

*Greenhouse Gases and Agriculture: An Introduction to the Processes and Tools to Quantify Them*

**Rich Conant**, Colorado State Natural Resource Ecology Laboratory

*Carbon Credits - Selling a New Crop from Your Farm or Ranch*

**Dale Enerson**, National Farmers Union Carbon Credit Program

**IIIc (Salon C) – On-Farm Energy Strategies and Innovations: Growing Plants and Programs**

To achieve agricultural sustainability in an expeditious manner we must invest in and deploy new practices, processes, and technologies that will conserve greater amounts of energy. In this

session the speakers will discuss some general and specific ways energy can be conserved and efficiency improved for different types of agricultural operations.

*Moderator: Stan Hitt, Natural Resources Conservation Service*

*Energy Implications of Advanced Nutrient Management Tools in Small Grain Cropping Systems*

**Chad Kruger**, Climate Friendly Farming Project

*A Comprehensive Approach to Improving Agriculture Programs*

**Dorothy Landt**, Alliant Energy

*Low Tech Winter Greenhouse Food Production without Direct Fossil Fuel*

**Steve Moore**, Center for Environmental Farming Systems

6:30 PM – 8:30 PM **Dinner (Salons E-H)**

Recognition of ACEEE 2007 Exemplary Agricultural Program Award Winners

7:00 PM – 9:00 PM **Info Fair Open (Junior Ballroom)**

**Friday, February 22**

7:00 AM – 8:30 AM **Breakfast** - Embassy Suites Hotel guests can enjoy a complimentary cooked-to-order breakfast

7:30 AM **Registration (Ballroom Lobby)**

8:30 AM – 10:00 AM **Plenary (Salons F-H): Public Policy Drivers for Energy Efficiency in Agriculture**

Public policy both at the state and federal levels is critically important to the level of energy efficiency investments made in the agricultural sector. This session will explore current as well as potentially new state and federal energy efficiency policies affecting American agriculture.

*Moderator: Lloyd Ritter, Green Capitol*

*Reaping the Benefits of A New Energy Economy – Why Capitalizing On Key Policy Drivers at both the State and National Level Is Critical To Continued Momentum for Agriculture in the New Energy Economy*

**Roya Stanley**, Iowa Office of Energy Independence

*Overview of Chairman Harkin's Work Building upon the Successes of the 2002 Farm Bill within the Framework of Today's New Energy Challenges and Opportunities*

**Ellen Huntoon**, Senior Agriculture Aide, Senator Harkin

*Discussion of Major Federal Policy Initiatives for Ag-Based Energy Efficiency, Including the Farm Bill, Energy Bill, And Other Recent or Pending Legislation*

**John Moore**, Environmental Law and Policy Center

*A Look Ahead at Possible New Federal Ag-Sector Energy Efficiency Policy Initiatives, and the Prospects for Future Legislation to Affect the Ag Sector*

**R. Neal Elliott**, American Council for an Energy-Efficient Economy

10:00 – 10:30 AM **Break - Info Fair Open (Junior Ballroom)**