

Nebraska Energy Fair

Session Agenda

Saturday, July 24, 2010

9:00 am - 4:30 pm



8:00 am-10:00 am

8:00 Registration

City Auditorium

9:00 Welcome from Mayor Andy Fuston

9:10 Keynote Presentation with State Senator Heath Mello

10:00 am – 10:50 am

USDA Rural Development Energy Programs

Mirror Sun Office (Auditorium)

Presenter: Korey Young

Are you ready to learn about energy funding opportunities? This session is designed as an introduction to the Rural Development Energy Funding Opportunities. Topics to be discussed include installation of energy efficiency improvements, renewable energy systems, and energy audits. These programs come out of the Farm Bill and offer 25% funding grants. Information on the path to grant or loan guarantee applications will be provided along with information on applicant and program eligibility.

Net Metering: How to Do it Legally

City Auditorium

Presenters: Stonie Cooper and Robert Byrnes

If you are a farmer, rancher, business owner, home owner or a mix of the above, this session is for you! Get a step by step process for establishing a grid-tied net metering system in Nebraska, from concept to completion. You will also learn ways to optimize the grid tied installation within Nebraska statutes.

C-Bed and Climate Policy

CFRA Meeting Room

Presenter: John Hansen

Learn the importance of climate policy for agriculture & rural America in this session. You will also learn about the different types of wind markets and how to tap into the state market to access more farmer ownership opportunities and local profit centers.

Thermal Solar

East side of Auditorium

Presenter: Steve Eveans

Methane Digesters

Presenter: Danny Kluthe

Firehall Meeting Room

Learn the process of building a digester on a hog farm from the beginning to where it is today from someone who has done it himself!

Simple Tips for Saving Home Energy

Presenters: Shirley Niemeyer and Carroll Welte

Lyons Public Library

The U.S. has about 5% of the world's population, but uses about 26% of the world's energy. In 2004, home energy consumption, including electricity, accounted for about 21% of the total U.S. energy consumption. (Source: U.S. Department of Energy)

Everyone can become a little "greener" and save energy by learning how to make 10 simple low cost or no cost changes within their homes. While these changes can save homeowners money, the bigger payback comes in conserving energy for the future. Participate in this session and learn how to do a home energy audit to identify and fix potential problems. Find out which of the new light bulbs to use in replacing incandescent bulbs as they burn out. Get a look at a few of the newer products on the market used for sealing outside air leaks. Learn about when "off" is really "on" and why electronics in the sleep mode can use up to 20% of electricity needed when they are fully on.

Home energy use accounts for about 20% of the energy-related U.S. carbon dioxide (CO₂) emissions, a major contributor to global warming. It's now more important than ever to reduce your home's energy consumption. Everyone can do so by implementing some the simple tips discussed in this presentation.

BREAK — 10:50 – 11:20 (Fundraising lunch from 11-1 at Happy Days Senior Center featuring local foods. Cost is \$6 per person.)

11:20 am – 12:10 pm

Federal Renewable Energy Policy Update

Presenter: Zach Nelson

Mirror Sun Office (Auditorium)

What role does the federal government play in renewable Energy? This session will provide an overview of federal renewable energy policy including pending legislation, federal initiatives to promote the development of renewable energy, and federal incentives to renewable energy producers and consumers. Learn today what efforts the federal government has taken toward making renewable energy profitable and competitive in both the United States and in Nebraska.

Small Wind, Before you Buy

Presenter: Jon Dixon

City Auditorium

Small wind is not an impulse type of purchase and there is much to know before you buy. This session will help you understand what you need to know about purchasing a turbine. Questions that will be addressed include what to look for in a product manufacturer and installer and how to evaluate them. You will also learn what state, county and utility requirements are. This session will help you define your goals, expectation and needs! So when it is all said and done your turbine will perform as expected!

A Commercial Wind Power Overview for both Nebraska and the USA

CFRA Meeting Room

Presenter: Kevin Miller

What is the overall potential for wind power for electrical production? What is the average wind farm size? This session will answer these questions plus many more on commercial wind power and will help you identify locations with the greatest potential for wind power utilization. Areas and regions of greatest usage, present plans for future development, and potential and probable barriers for construction of commercial farms will also be discussed. Examples from both metropolitan and rural applications will be provided.

Business Conservation Techniques

Lyons Public Library

Presenters: Nico Hardeman, Colm O'Flaherty and Paolo Vidali

Panelist will share information on current energy conservation techniques being utilized within an area business operation. The results of the recent community energy audit will be discussed. You will also have an opportunity to learn about Utiligard.

PV Solar Basics

East side of Auditorium

Presenter: Robert Byrnes

You can gain an introduction to photovoltaic technology and systems for beginners. You will leave this session understanding the nature of the resource and technology of PV.

Biodiesel — Utilization and Production Opportunities

Firehall Meeting Room

Presenter: Loren Isom

Today you can gain a basic knowledge of biodiesel fuels. This session will address the use of biodiesel and biodiesel blended fuels, biodiesel production and market trends, government incentives or lack of, and feedstock development. You will also gain an understanding of biodiesel markets and government incentives.

BREAK — 12:10 – 1:40 (Fundraising lunch from 11-1 at Happy Days Senior Center featuring local foods. Cost is \$6 per person.)

1:40 pm – 2:30 pm

Harnessing Wind, Creating Economic Opportunity

Mirror Sun Office (Auditorium)

Presenters: Chuck Hassebrook, Brian Depew, and Virginia Wolking

Major wind developments are creating economic opportunity in Nebraska and why shouldn't you be a part of it? Learn today how state and federal policy can drive wind development in Nebraska and how you can engage in the policy process!

This session will cover recent and proposed state and federal policy that could lead to major wind development in Nebraska, especially for the export market. We will discuss Nebraska LB 1048 and a federal Renewable Electricity Standard and the economic development potential of these policies.

Community, School and Small Wind Opportunities

City Auditorium

Presenter: Jerry Hudgins

Educating our future leaders on wind energy technology is now more important than ever! The US Department of Energy's program *Wind for Schools Project* was created to raise awareness in rural America about the benefits of wind energy, while simultaneously developing a wind energy knowledge base in the U.S. to educate future leaders in renewable energy.

Through this session, you will learn about educational opportunities to engage rural school students and teachers in wind energy technology, along with learning about curriculum sources and professional opportunities in the wind energy business sector.

Transmission, Construction and Landowner Issues

CFRA Meeting Room

Presenter: John Hansen

This session will focus on landowner issues, landowner wind farm associations, and Nebraska's RFP process. Also to be discussed are a few steps on how you can develop farmer owned wind on the state market.

Power Drive — Electric Powered Cars

Lyons Public Library

Presenter: Rob Smith

What could a one-person electrical vehicle possibly be used for? In this session, you will learn how Bancroft-Rosalie School students are using the Power Drive program to learn about electric powered cars, batteries, and aerodynamics. These battery-charged cars compete in multiple rallies throughout the spring of the school year. The Power Drive team works together each year to improve old car models and construct new models.

PV Solar Advanced

East side of Auditorium

Presenter: Robert Byrnes

This session is focused on locating, sizing and economics of photovoltaics systems. You will leave this session understanding the major factors involved in development.

Wood Gasification

Firehall Meeting Room

Presenter: Kevin Miller

Do you or your community have wood waste resources available? Are you not sure what to do with it? Wood gasification may be the solution for you! Learn today the history of wood gasification, both in Europe as well as the United States. This session will also teach you the process used and will explain the different types of gasifiers that have been used successfully. Health and environmental issues involved with wood gasification will also be discussed.

BREAK — 2:30 – 3:00

3:00 pm – 3:50 pm

International Developments in Europe and Asia

Mirror Sun Office (Auditorium)

Presenters: Colm O’Flaherty and Paolo Vidali

The best way to learn how to improve the Nebraska Energy Market is to learn from others. In this session, you will gain an understanding of the European and Asian energy markets. You will be able to see the commonalities in European and American problems and problem solving. Existing & emerging European technologies and policies and their application to the US and specifically the Nebraskan Market will also be discussed.

This session will also highlight recent public & private initiatives throughout Asia to build energy infrastructure based on wind, solar and biomass. Agricultural capabilities of the region will be compared to the Midwestern US to highlight potential opportunities here. Learning about developments in Asia and in Europe will inspire further investigation into renewable energy potential and help you make Nebraska thrive as an Energy Market!

Sizing and Siting Small Wind

City Auditorium

Presenter: Joel Jacobs

Have you been thinking about installing wind turbines, but don't know what size to get or where it should be located to catch the best wind? Well if so, this session will greatly benefit you! The site and size of a wind turbine determines the success and the economics of the project. Not only will size and site be discussed, but you can also look forward to discussion on the basics of electricity and energy, wind turbine types, aerodynamics and structures, soils and foundations, electrical connection, permits and permissions, plus so much more! You will leave this session knowing the information you need to begin the process of installing wind turbines!

Policy Advocacy 101

CFRA Meeting Room

Presenters: Traci Bruckner and John Crabtree

Do you think public policy needs to do more to strengthen rural communities? Do you want to learn how to be an advocate for policy to make a difference in your community? If you said yes to either of these, then you need to plan to attend Policy Advocacy 101 workshop and learn the ins and outs of policy advocacy. You will learn how policy development and advocacy works and how you can get involved to shape policy at the federal and state levels.

Greening Your Transportation and Electric Cars

Lyons Public Library

Presenter: Bill Moore

Second Generation Biofuels

Firehall Meeting Room

Presenter: Robert Byrnes

You will get the opportunity to become familiar with upcoming technologies in Nebraska. This session outlines new technologies on the horizon to increase awareness which benefit you in the long run!

Small Scale Wind Turbine Technology

Presenters: Kevin Miller and Dan Anderson

East Side of Auditorium

Expand your knowledge on small scale wind turbine technology through information and demonstration! Coordinating with the Nebraska Solar Energy Society, this session will provide you with a presentation on home built solar power. You'll get a basic overview of how energy potential is determined along with examples of commercially available wind turbines. You will also become acquainted with the 1 Kilowatt mill built by students at Chadron State College. Net metering and other methods of energy storage will also be discussed.

4:00 pm – 4:30 pm

Q & A for Attendees and Speakers

City Auditorium

Other Activities to Check out

8:00 am—Morning Yoga with Deb Ward

8:00 am-3:00—Visit exhibit booths throughout the day

8:00 am-4:30—Conservation Audits

8:00 am-4:00—Lyons Decatur Northeast Carwash--Fundraiser

10:30 am—Hatha Yoga with Deb Ward

2:30 pm—Senior Yoga with Deb Ward

**8:30 pm—Street Dance hosted by the Fallout Bar & Grill
with musical performance by Off the Grid**

Brink Memorial Park

Auditorium & Outdoor lot

Nebraska Green Fuels

Firehall Parking Lot

Bethany Lutheran Church

Happy Days Senior Care

Fallout Bar & Grill

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