



WIND ENERGY

NEW ECONOMIC *opportunities*

A conference for Minnesota and a model for the Midwest

NOVEMBER 21 AND 22, 2002

MINNEAPOLIS, MINNESOTA

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WELCOME

Through innovative legislative policy, state programs, and utility initiatives, Minnesota has begun a transition to using clean, renewable, and domestic energy sources. As the most cost-competitive and market-ready renewable energy technology, wind energy is at the forefront of this transition.

This conference draws together a diverse group of businesses, utilities, state agencies, elected officials, energy regulators, advocates, experts, engaged citizens and media – embracing a broad range of economic development, environmental and political interests – to address the issues that need to be incorporated into a plan for shaping this region's energy future with wind power.

The goals of the conference are:

- *To provide a forum to advance the "Renewable Energy Objective" which was adopted as Minnesota state policy in 2001;*
- *to encourage the expansion of sustainable wind energy and its use;*
- *to promote the growth of a state and regional wind energy manufacturing industry; and*
- *to facilitate development of community-based wind projects.*

The Conference Steering Committee and I aimed to put together a program that covers the challenges and the enormous possibilities for the wind industry. We are glad you have taken the time to be with us.

*Regards,
Lisa Daniels, Windustry Director*

WIND ENERGY: NEW ECONOMIC opportunities

EVENT HIGHLIGHTS

THURSDAY, NOVEMBER 21, 2002

7:00 AM

Registration open- Mezzanine Lobby

7:30 AM

Wind Energy 101 An overview of the basics of wind technology, economics and environmental benefits. Includes a continental breakfast and is open to everybody. Fee \$10

Location: M100 (AB/II)

Everything You ever Wanted to Know about Wind Energy A continental breakfast for legislators and other elected officials. Fee \$10

Location: M101 (BC)

9:30 AM

Welcome, Dedication, and Opening Plenary Session The opening session will feature government and wind industry leaders sharing their perspectives and visions for wind energy in Minnesota and the Midwest. Speakers will include Minneapolis Mayor R.T. Rybak, Mark Ritchie from the Institute for Agriculture and Trade Policy (dedication) and government and business leaders.

Location: L100

12:30 PM

Lunch/Keynote Speaker Paul Leinberger, Ph.D., RoperASW. Roper Green Gauge Report™, the nation's pre-eminent guide for surviving and thriving in the green marketplace.

Location: L100

5:15 PM

Networking Session Refreshments and time to visit exhibits.

FRIDAY, NOVEMBER 22, 2002

8:00 AM

Registration open- Mezzanine Level

12:00 PM

Lunch/Closing Plenary Session: Unleashing Wind's Potential A panel discussion on how emerging technologies will open markets for wind power.

Location: L100

2:30 PM

Conference adjourns

2:45 PM

Minnesota Department of Commerce will hold a public meeting on Minnesota's production payment incentive.

Location M101 (BC)

ABOUT US

Windustry builds collaborations and provides technical support to create an understanding of wind energy opportunities for economic development. Windustry is affiliated with the Institute for Agriculture and Trade Policy (IATP) in Minneapolis, Minnesota. The Institute promotes resilient family farms, rural communities and ecosystems around the world through research and education, science and technology, and advocacy.


WINDUSTRY™



SCHEDULE OF EVENTS

Which sessions should I attend?

This conference is intended for a wide audience, covering a broad range of topics and perspectives. The sessions are categorized into four tracks: Advancing Minnesota's Renewable Energy Objective, Economic Development, Community-based Wind, and Citizen and Landowner Workshops. Attendees are welcome to attend sessions in any track.

Advancing Minnesota's "Renewable Energy Objective"

This track explores options and strategies for reaching Minnesota's goal of having ten percent renewable energy by 2015. The objective is part of a state law passed in 2001. Target audiences: utilities, utility regulators, state agencies, energy system planners, transmission planners, policymakers, and developers.

Economic Development

This track will connect wind energy and economic development with a focus on establishing a vibrant wind energy industry in Minnesota and the Midwest. Target audiences: economic development professionals, community planners, manufacturers, money lenders, Chamber of Commerce members, post-secondary instructors, and all who are interested in the economic benefits of establishing a new industry. Sessions will be approachable to wind energy beginners.

Community-based Wind

This track presents opportunities for communities to develop their wind resource, including practical information about financing and technical issues. Target audiences: Rural electric cooperative staff and directors, municipal utilities, elected officials, community planners, community leaders and activists, money lenders, schools, small businesses, rural landowners, state agencies, U.S. Department of Agriculture, and interested citizens.

Citizen and Landowner Workshops

The sessions in this track are designed to be interactive workshops, concentrating on the practical steps of developing wind projects. Topics include small and large-scale wind systems, leasing your land versus owning your own wind project, and how to support wind energy development from an urban setting. Target audiences: rural landowners and interested citizens.

THURSDAY NOVEMBER 21, 2002

7:00 AM	Registration	Registration will be open from 7 AM - 2 PM
7:30 - 9:00 AM	Breakfast Tutorials	Wind Energy 101 (Room M100 AB/II) The basics of wind technology, economics and environmental benefits Moderator: J. Drake Hamilton, Minnesotans for an Energy-Efficient Economy •John Dunlop, American Wind Energy Association •Mick Sagrillo, Sagrillo Power & Light
9:30 - 10:45 AM	Welcome / Opening Session (Room L100)	Perspectives on Wind Energy Economics and Policy Moderator: Betsy Engelking, Great River Energy •Minneapolis Mayor R.T. Rybak
10:45 AM	Break	
11:15 AM - 12:30 PM	Session 1	ADVANCING MINNESOTA'S RENEWABLE ENERGY OBJECTIVE (Room M101 BC) Resource Planning What is a good faith effort to meet the REO? Big and small projects, contracting vs. owning projects Moderator: Betsy Engelking, Great River Energy •Mike Bull, Minnesota House of Representatives •Daniel Hayes, Southern Minnesota Municipal Power Agency •Kate O'Connell, MN Dept. of Commerce
12:30 - 2:00 PM	Lunch (Room L100)	Keynote Speaker: Paul Leinberger, Ph.D., RoperASW Roper Gr
2:00 - 3:15 PM	Session 2	Transmission Policy How the Minnesota PUC views the Renewable Energy Objective Commissioner Phyllis Reha, MN Public Utilities Commission Transporting wind-generated electricity to load centers Moderator: Beth Soholt, Wind on the Wires /Izaak Walton League of America •Linda Taylor, MN Dept. of Commerce •Glen Skarbakka, Consultant on wind/transmission issues •Audrey Zibelman, TRANSLink
3:15 PM	Break	
3:40 - 5:00 PM	Session 3	Integrating Wind Energy Blending wind energy into a utility's power supplies Moderator: Matt Schuerger, Wind on the Wires •Brent Kitchen, Alliant Energy •Stephen Jones, Xcel Energy •Brian Parsons, National Renewable Energy Laboratory
5:15 - 7:00 PM	Networking Session (Lower Level Lobby)	

FRIDAY NOVEMBER 22, 2002

8:00 AM	Registration	Registration will be open from 8 - 11 AM
9:00 - 10:20 AM	Session 4	Green Pricing Programs: Consumer Choice Opportunities Green certification standards, utility program best practices and results, and current issues in green pricing programs in Minnesota Moderator: Mike Taylor, MN Dept. of Commerce, Energy Office •J. Drake Hamilton, Minnesotans for an Energy-Efficient Economy (ME3) •Mike Taylor, MN Dept. of Commerce, Energy Office •Jeff Peters, Missouri River Energy Services
10:20 AM	Break	
10:40 AM - 12:00 Noon	Session 5	Credit Trading for the Renewable Energy Objective Establishing a renewable energy credit trading system for utilities in Minnesota Moderator: Ken Wolf, MN Dept. of Commerce •Mike Sloan, Virtus Energy Research Associates •Dan Lieberman, Center for Resource Solutions •Michael Noble, Minnesotans for an Energy-Efficient Economy (ME3)
12:00 Noon - 2:30 PM	Lunch / Closing Session (Room L100)	Unleashing Wind's Potential How emerging technologies will open Moderator: Lyle Wray, Citizen's League •Lyle Wray, Citizens League •Robert Goff, R4 Energy
2:30 PM	Adjourn	

<p>nt Economy (ME3)</p> <ul style="list-style-type: none"> •J. Drake Hamilton, ME3 •David Blecker, Earth Energy Systems, Ltd. 	<p>Everything You Always Wanted to Know about Wind Power (Room M101 BC) A continental breakfast for legislators and other elected officials Moderator: Dee Long, Minnesotans for an Energy-Efficient Economy (ME3)</p> <ul style="list-style-type: none"> •Brian Parsons, National Renewable Energy Lab •Linda Taylor, MN Dept of Commerce 	<ul style="list-style-type: none"> •Troy Gagliano, National Council for State Legislators •Tom Wind, P.E., Utility Consulting Engineer
<ul style="list-style-type: none"> •Mark Ritchie, Institute for Agriculture and Trade Policy 	<ul style="list-style-type: none"> •Government and business leaders 	
<p>ECONOMIC DEVELOPMENT (Room M100 DC)</p> <p>Wind Power and Economic Development Status, markets, applications, technology, economics and local benefits of wind energy Moderator: Steve Clemmer, Union of Concerned Scientists</p> <ul style="list-style-type: none"> •John Dunlop, American Wind Energy Association •Charles Kubert, Environmental Law and Policy Center •Steve Clemmer, Union of Concerned Scientists •Dan Otto, Professor of Economics, Iowa State University 	<p>COMMUNITY-BASED WIND (Room M100 AB/II)</p> <p>What Makes a Good Wind Site? Resource assessment, siting, permitting and local policy Moderator: Janet Streff, MN Dept. of Commerce, Energy Office</p> <ul style="list-style-type: none"> •Rory Artig, MN Department of Commerce, Energy Office •Larry Hartman, MN Environmental Quality Board •Tom Wind, Wind Utility Consulting •Mick Sagrillo, Sagrillo Power & Light •Jack Keers, Pipestone County Commissioner 	<p>CITIZEN AND LANDOWNER WORKSHOPS (Room M100 GH)</p> <p>Advocating for Wind Energy What you can do to support wind energy from an urban and rural perspective Moderator: Diane Jensen, The Minnesota Project</p> <ul style="list-style-type: none"> •Andrea Kiepe, Clean Water Action Alliance •Carl Nelson, The Minnesota Project •Cindy Kennedy, Minnesota Council of Churches •Bob Gough, Intertribal Council on Utility Policy
<p>Green Gauge Report™, the nation's pre-eminent guide for surviving and thriving in the green marketplace</p>		
<p>Overcoming Challenges to Wind Energy Education, training, financing and integrating wind power Moderator: Jack Geller, Center for Rural Policy & Development</p> <ul style="list-style-type: none"> •Dennis Hampel, Minnesota West Community and Technical College •Jim Boerboom, MN Dept. of Agriculture •Tom Wind, Wind Utility Consulting 	<p>Financing Wind Projects Incentives and how they make projects work and rural money lenders with wind experience Moderator: Tobias C. Madden, Federal Reserve Bank of Mpls</p> <ul style="list-style-type: none"> •Dan Juhl, DanMar and Associates •David Gaffaney, USDA Rural Development •Keith Eichacker, First National Bank of Pipestone/Fishback Financial Corporation •Ken Reiners, AgStar Financial Services 	<p>Small-scale Wind Systems I Technology, siting, permitting and zoning Moderator: Mike Taylor, MN Dept. of Commerce, Energy Office</p> <ul style="list-style-type: none"> •Mick Sagrillo, Sagrillo Power & Light •Joe Kolbach, Energy Maintenance Systems •Ralph Jacobson, Innovative Power Systems
<p>Building a Wind Industry in Minnesota & the Midwest: Part A What makes a community attractive to a wind manufacturer? Moderator: Connie Ireland, Minnesota Technology, Inc.</p> <ul style="list-style-type: none"> •Leif Andersen, NEG Micon USA •Mark Lofthus, MN Dep. of Trade and Economic Development •Gary Campbell, Strategy Associates 	<p>Wind Rights: a Negotiable Asset Should you lease your land or build your own wind project? Moderator: Lisa Daniels, Windustry</p> <ul style="list-style-type: none"> •John Daniels, Willeke & Daniels •Tom Wind, Wind Utility Consulting •Jeffrey Paulson, Jeffrey C. Paulson and Associates 	<p>Small-scale Wind Systems II Economics and case studies Moderator: Mike Taylor, MN Dept. of Commerce, Energy Office</p> <ul style="list-style-type: none"> •Trudy Forsyth, National Renewable Energy Laboratory •Shawn Otto, small wind turbine owner •Small wind turbine owner, TBA
<p>Building a Wind Industry in Minnesota & the Midwest: Part B Setting the stage for building a sustainable wind industry Moderator: Mark Lofthus, MN Dept. of Trade and Economic Development</p> <ul style="list-style-type: none"> •Michelle Bissonnette, HDR Engineering •Gary Stokes, SMI, tower manufacturer •Mark Ahlstrom, SSESOC •Mark Eilers, GE Wind Energy 	<p>Interconnection and Transmission Overview of transmission access issues and how to interconnect to the grid Moderator: Bob Cupit, MN Dept. of Commerce, Energy Office</p> <ul style="list-style-type: none"> •David Blecker, Earth Energy Systems, Ltd. •Wes Slaymaker, enXco •Mike Michaud, Minnesota Environmental Quality Board 	<p>Building Support for Community Wind Projects Explores ways to build community interest and momentum Moderator: Lola Schoenrich, the Minnesota Project</p> <ul style="list-style-type: none"> •Sigurd Anderson, Engineering Laboratory Design/Citizens United for Responsible Energy •Bruce Anderson, RENew Northfield •Greg Cuomo, West Central Research and Outreach Center •Kevin Bengston, Moorhead Public Service
<p>Success Stories (Room M100 AB/II) Successful wind projects, large and small Moderator: State Representative Doug Magnus (invited)</p> <ul style="list-style-type: none"> •Scott Hain, Worthington Municipal Utility •Bob Gough, Intertribal Council on Utility Policy •Tim Seck, Great River Energy •Tom Arends, Minwind II •Christopher Reed, Nemadji Research 	<p>Success Stories Successful wind projects, large and small Moderator: State Representative Doug Magnus (invited)</p> <ul style="list-style-type: none"> •Scott Hain, Worthington Municipal Utility •Bob Gough, Intertribal Council on Utility Policy •Tim Seck, Great River Energy •Tom Arends, Minwind II •Christopher Reed, Nemadji Research 	<p>Steps to Build a Utility-scale Wind Project A practical overview of how to put a project together Moderator: TBA</p> <ul style="list-style-type: none"> •Dan Juhl, DanMar and Associates •Stephen Jones, Xcel Energy •Mark Willers, Minwind I
<p>Open markets for wind power</p>		
<ul style="list-style-type: none"> •George P. Nassos, Illinois Institute of Technology •Dick Broeker, University of Minnesota's Experiment in Rural Cooperation 	<ul style="list-style-type: none"> •State Senator Steve Kelley and State Representative Phil Krinkie (invited) 	

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Windustry and the Institute for Agriculture and Trade Policy organized this conference in collaboration with a diverse steering committee and several work teams. We would like to thank all who participated for their hard work and support.

STEERING COMMITTEE

David Benson, Nobles County Commissioner / Southwest Energy Task Force

Lisa Daniels, Windustry/Institute for Agriculture and Trade Policy
John Dunlop, American Wind Energy Association

Betsy Engelking, Great River Energy

Connie Ireland, Minnesota Technology, Inc.

Mike Larson, Iron Range Resources and Rehabilitation Agency

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*Dedicated in
memory of
Senator Paul Wellstone
1944 - 2002*