



## **Federal Energy Regulatory Commission**

Technical Conference:  
Assessing the State of Wind Energy  
In Wholesale Electricity Markets  
Docket No. AD04-13-000

Wednesday, December 1, 2004  
10:00 a.m. – 6:00 p.m. Mountain Time

Adams Mark Hotel  
Denver, Colorado

# Agenda

## 10:00 a.m. **Opening Session**

- Chairman Pat Wood, III, Federal Energy Regulatory Commission
- Commissioner Suedeen Kelly, FERC
- Commissioner Nora Mead Brownell, FERC
- Bill Richardson, Governor, State of New Mexico

## 11:00 a.m. **Overview of the Drivers and Issues to Wind Energy Participation in Wholesale Energy Markets**

Panelists will discuss the current state of wind development, regulatory and policy initiatives, regional efforts and activities. Questions intended to be addressed include:

- What is the current state of wind energy development?
- What is the potential for wind energy development?
- What are the drivers (economic, financial, technological, environmental, geographic and legislative) of wind energy development?
- What are the overall economic challenges faced by wind developers in moving a project from paper to production?
- Are there certain issues/factors that are region-specific?
- How can wind development be viable in states that do not have a renewable portfolio mandate?

### Panelists:

- Matthew Brown, National Conference of State Legislatures
- Tom Kerr, Environmental Protection Agency
- Lee Otteni, Bureau of Land Management
- Robert L. Sims, SeaWest Wind Power
- Mark Maher, PacifiCorp
- Doug Larson, Western Interstate Energy Board
- J. Charles Smith, NexGen Energy, LLC on behalf of Utility Wind Interest Group

## 12:30 p.m. **Lunch**

1:15 p.m. **Planning, Grid Operation and Utilization to Account for Wind and Other Emerging Technologies**

Questions intended to be addressed include:

- What are the particular needs of intermittent resources, such as wind generators, and how should they be recognized and accommodated in the transmission and resource planning process?
- How can current planning practices be refocused to identify opportunities for increased utilization of the current transmission infrastructure?
- How can wind generation contribute to reserve requirements, and receive capacity credits in a capacity market?
- What are the reliability impacts of large-scale wind integration on the regional transmission grid?

*Panelists:*

- Steve Fausett, TriState Generation and Transmission, on behalf of National rural Electric Cooperative Association
- Bob Markee, Upper Great Plains Transmission Coalition
- John Krajewski, Municipal Energy Agency of Nebraska
- Mark Smith, FPL Energy
- Yakout Mansour, BC Transmission Corporation
- Bob Easton, Western Area Power Administrator
- Kevin Porter, Exeter Associates
- Stephen Larson, California Public Utilities Commission
- Mollie Lampi, New York Independent System Operator
- David Hawkins, California Independent System Operator

2:30 p.m. **Break**

2:45 p.m. **Open Access Transmission Tariff Services and Pricing**

The following session will cover issues related to the open access transmission tariffs. Panelists should address current practices, experiences, issues, near-term and longer-term solutions, and any impacts to others from potential solutions. Questions intended to be answered include:

- Can the existing pro forma tariff's transmission services (network and point-to-point), and the related ancillary services satisfy the needs of intermittent resources? What, if any, challenges and benefits do they present for intermittent resources?
- To what extent can transmission capacity reassignment address the needs of wind generation with respect to firm service availability, price and terms?
- Can the terms and conditions of service of the pro forma tariff be modified to encourage the addition of intermittent resources to the grid, e.g., new services or changes to existing rates or services?
- Will creation of new transmission services affect the uniformity and pricing of transmission services? Are there potential subsidization issues that arise from the creation of new transmission services?
- What are the operational issues and impacts to the transmission grid and existing transmission services from the addition of wind resources, both within control areas and across multiple systems?
- Are there experiences from the natural gas pipeline industry that can be related to the needs of intermittent resources, e.g., handling of imbalance charges?

Panelists:

- Jim Byrne, Rocky Mountain Area Transmission Study
- James Caldwell, PPM Energy
- Beth Soholt, Wind on the Wires
- Dan Klempel, Basin Electric Power Cooperative
- Gregory Miller, Public Service Company of New Mexico
- John Fielder, Southern California Edison
- John Meyer, Reliant Energy
- Robert Kennedy, Western Area Power Administration
- Janie Selby, Bonneville Power Administration
- Jim Blatchford, California Independent System Operator
- Joe Kerecman, PJM Interconnection L.L.C.
- J. Charles Smith, NexGen Energy, LLC on behalf of Utility Wind Interest Group

5:00 p.m.    **Open Discussion/Closing Remarks**

6:00 p.m.    **Adjourn**

## Revised Attendee List:

Mark Ahlstrom	WindLogics Inc.
Charles E. Anderson	Xcel Energy, Inc.
Saeed Barhaghi	Colorado Public Utilities Commission
Todd R. Bartholf	CH2M Hill
Renaldo Baucom	Xcel Energy
Ian Benson	Xcel Energy
Joel Bladow	Western Area Power Administration
James Blasiak	DykemaGossett PLLC
Jim Blatchford	California Independent System Operator
Dana Blum	Primen
Lance Boyd	Aquila, Inc.
Robert "Hap" Boyd	GE Energy
Kirk Bracht	California Public Utilities Commission
John Bremer	Western Area Power Administration
Matthew Brown	National Conference of State Legislatures
Nora Brownell, Commissioner	Federal Energy Regulatory Commission
Reid Buckley	Orion Energy LLC
Alison Burchell	Consultant, Wise
Kate Burke	National Conference of State Legislatures
C.P. (Sandy) Butterfield	National Renewable Energy Laboratory
Jim Byrne	Rocky Mountain Area Transmission Study
John Calaway	Superior Renewable Energy LLC
James Caldwell	PPM Energy
Nora Caley	North American Windpower Magazine
Thomas Carr	Western Interstate Energy Board
Paul Cartwright	Montana Dept. of Environmental Quality
Gargi Chakrabarty	Rocky Mountain News
Robert B. Chapin	Anderson and Chapin PC
Larry Chasett	California Public Utilities Commission
Brian Cole	Arizona Public Service
Perry Cole	Trans-Elect New Transmission
Gary Condict	Aquila Inc.
John Covert	Colorado Working Landscapes
Craig Cox	Interwest Energy Alliance
Philip Crissup	Oklahoma Gas and Electric Company
Robert Crowell	Zilkha Renewable Energy
Matthew Deal	Federal Energy Regulatory Commission
David Drew	Marathon Capital, LLC
John R. Dunlop	American Wind Energy Association
David Dworzak	Edison Electric Institute

Bob Easton	Western Area Power Administration
Shannon Eddy	California Public Utilities Commission
Edison Elizeh	PacifiCorp
Christopher T. Ellison	Ellison, Schneider & Harris LLP
Chuck Falls	Salt River Project
Ned Farquhar	Governors Office, New Mexico
Steve Fausett	TriState Generation & Transmission/NRECA
Thomas Feiler	Clipper Windpower, Inc.
John Fielder	Southern California Edison
Larry Flowers	National Renewable Energy Laboratory
Bryce Freeman	Wyoming Office of Consumer Advocate
Bob Fullerton	Western Area Power Administration
Jignasa Gadani	Federal Energy Regulatory Commission
Charles Garcia	Public Service Company of New Mexico
Robert Gough	Intertribal Council on Utility Policy
Rob Gramlich	Federal Energy Regulatory Commission
Stan Gray	RES Americas Development
Tom Green	Xcel Energy
Lynn Greene	Moye Giles LLP
Michael S. Hacskaylo	Western Area Power Administration
Stephen C. Hall	Stoel Rives LLP
Roger Hamilton	West Wind Wires
Donald Hardy	PanAero Corporation
Marilyn Hardy	PanAero Corporation
Gary Harper	Salt River Project
Stacey Harris	Western Area Power Administration
Price Hatcher	Xcel Energy
David Hawkins	California Independent System Operator
Mark Hegerle	Federal Energy Regulatory Commission
Jody Holland	Southwest Power Pool
Melissa Holland	British Columbia Transmission Corporation
Edward Holt	Ed Holt & Associates, Inc.
Jaromir Horenovsky	Colorado Springs Utilities
Edmond Horsey	Enselle LLC
Ed Hulls	Western Area Power Administration
Rob Hurlless, Chairman	Wyoming Public Service Commission
Karen Hyde	Xcel Energy
Kaoru Iwasaki	Mitsubishi Power Systems
Mike Jacobs	American Wind Energy Association
Tony Jimenez	National Renewable Energy Laboratory
Robert Johnson	Sunflower Electric Power Corporation
Stephen Jones	Xcel Energy
Trudy Kareus	Rep. Mark Udall
Steven Kelly	Independent Energy Producers Assn.

Suedeem Kelly, Commissioner	Federal Energy Regulatory Commission
Robert Kennedy	Western Area Power Administration
Joe Kerecman	PJM Interconnection L.L.C.
Miles Keogh	NWCC
Tom Kerr	Environmental Protection Agency
Brendan Kirby	Federal Energy Regulatory Commission
Robin Kittel	Xcel Energy
Dan Klempel	Basin Electric Power Cooperative
Kent Knutson	Global Energy Decisions
Judith Kohler	The Associated Press
Peter Konesky	Nevada State Office of Energy
John Krajewski	Municipal Energy Agency of Nebraska
John Kral	Western Area Power Administration
Mollie Lampi	New York Independent System Operator
Doug Larson	Western Interstate Energy Board
Stephen Larson	California Public Utilities Commission
Eric Laverty	Midwest ISO
Tracey LeBeau	Cheyenne River Sioux Tribe
Bryan Lee	Federal Energy Regulatory Commission
Paul Lehman	Xcel Energy
Ronald Lehr	American Wind Energy Association
Kathleen Lewis, Commissioner	Wyoming Public Service Commission
E. Jay Lobit	Great Plains Windpower
Mike MacDougall	Powerex Corp.
Mark Maher	PacifiCorp
Elliot Mainzer	Bonneville Power Administration
Dennis Malone	El Paso Electric Company
Randolph Manion	Western Area Power Administration
Yakout Mansour	BC Transmission Corporation
Bob Markee	Upper Great Plains Transmission Coalition
Michael McDiarmid	NM Energy Division
Tom McDonough	Xcel Energy
Mark McGree	Xcel Energy
Natalie McIntire	Renewable Northwest Project
Sarah McKinley	Federal Energy Regulatory Commission
John Meyer	Reliant Energy
C. Sam Miller	Western Area Power Administration
Gregory Miller	Public Service Company of New Mexico
Michael Milligan	National Renewable Energy Laboratory
John E. Mills	Southwest Power Pool
Darrick Moe	Western Area Power Administration
Doug Monnig	Xcel Energy
Christopher Moore	Navitas Energy
Edwin C. Moses	Marathon Capital, LLC

Hiroaki Nagata	Mitsubishi Heavy Industries, Ltd.
Laura Nelson	Idaho Public Utilities Commission
Jose Nevarez	El Paso Electric Company
James Newcomb	bio era
Mona Newton	Quixote Wind, Inc.
Brett Oakleaf	Xcel Energy
Tim Olsen	Advanced Energy Systems, Inc.
Lee Otteni	Bureau of Land Management
Brian Parsons	National Energy Renewable Laboratory
Terrin Pearson	Bonneville Power Administration
Kevin Porter	Exeter Associates
Scott Prestidge	Congressman Mark Udall
Ron Rebenitsch	Basin Electric Power Cooperative
Lloyd C. Reed	Golden Energy Services, Inc.
Charles Reinhold	Electric Resource Strategies
Paul Renauld	National Grid USA
Christie Rewey	National Conference of State Legislatures
Bill Richardson, Governor	State of New Mexico
Lynn Richardson	Western Area Power Administration
Rudy Rivas	Clipper Windpower
Roby Roberts	PPM Energy
Harold Romanowitz	Oak Creek Energy Systems, Inc.
Chris Rundell	Prairie Wind Energy
Jacqueline Sargent	Black Hills Energy, Inc.
David Schiada	Southern California Edison
Dean Schiro	Xcel Energy
Dan Schoenecker	MAPP
Matt Schuerger	ESCS/Wind on the Wires
Janie Selby	Bonneville Power Administration
Meghana Shah	CDR Associates
David Shelton	Western Area Power Administration
Larry Shiao	Colorado Public Utilities Commission
Clifton Skye	United Sioux Tribes of South Dakota Development Corp.
Jamie Simler	Federal Energy Regulatory Commission
Robert L. Sims	SeaWest Wind Power
J. Charles Smith	NexGen Energy, LLC on behalf of UWIG
Jennifer Smith	National Conference of State Legislatures
Jerry Smith	Arizona Public Service Co.
Mark Smith	FPL Energy
Beth Soholt	Wind on the Wires
Jim Spiers	Consultant/Attorney
Les Starck	Southern California Edison
Ron Steinbach	Western Area Power Administration

Louis Szablya	Great Northern Power Development
James Tarpey	Holland & Hart LLP
Roger Taylor	National Renewable Energy Laboratory
Jill Tietjen, P.E.	Technically Speaking
Christopher Thomas	Federal Energy Regulatory Commission
Robert Thompson	Xcel Energy
Robert M. Thompson	New York Independent System Operator
Duane Torgerson	Winfield Enterprise, LLC
Laura Vallance	Federal Energy Regulatory Commission
Raymond Vojdani	Western Area Power Administration
Dan Walter	Tri-State Generation and Transmission Assoc.
Scott Watson	Xcel Energy
Barb Wayker	Western Area Power Administration
Tom Weis	enXco
Adam Wenner	Chadbourne & Parke LLP
Carol White	Federal Energy Regulatory Commission
Ron D. White	Consulting Economist
Terry Wilhelms	Nebraska Public Power District
Robert Wolaver	Tri-State G&T
Ken Wolf	MN Dept. of Commerce
Pat Wood, Chairman	Federal Energy Regulatory Commission
Karl Wunderlich	U.S. Bureau of Reclamation
Robert M. Zavadil	EnerNex