Wind Interconnection Workshop January 21 – 23, 2009 Golden, CO

Sponsor:

Co-sponsors:

National Rural Electric Cooperative Association

American Public Power Association Utility Wind Integration Group Western Area Power Administration U.S. DOE Wind and Hydropower Technologies Program National Wind Coordinating Collaborative

Location:

Western's Electric Power Training Center 1667 Cole Boulevard Building 19, Suite 152 Golden, CO 80401

A re you ready to integrate the world's fastest growing form of generation into your power mix? This two-day workshop, with an optional tour of the National Wind Technology Center on Friday, Jan. 23, will answer your questions about interconnecting wind turbines and other distributed generation applications to electric distribution systems.

Get an overview of wind energy, followed by an introduction to the Utility Wind Integration Group's Internetbased tools for assessing a distributed wind project's impact on the local distribution system. Training will cover the theory behind each tool and demonstrate their use with actual data.

Also, Western's Electric Power Training Center (EPTC) instructors will be there to offer a tour of the center. Participants will have the opportunity to observe a demonstration of the EPTC's hands-on miniature power system, including a Wind Farm Simulator developed in partnership with the National Renewable Energy Laboratory and the U.S. Department of Energy's Wind and Hydropower Technologies Program.

Continuing education credit is available for this work shop.

January 21 Agenda

7:30 a.m.	Continental breakfast at EPTC		
8:00 a.m.	Welcome and Introductions		
8:30 a.m.	Wind Energy Update		
9:15 a.m.	Distributed Wind Integration Experience		
10:00 a.m.	Break		
10:30 a.m.	Distributed Wind Impacts Project Overview		
Noon	Lunch		
1:00 p.m.	Screening Distributed Wind Projects – Economics		
	Lab Exercise: Capacity Factor, Production Tax Credit, Clean		
	Renewable Energy Bonds		
2:45 p.m.	Afternoon break		
3:15 p.m.	Screening Distributed Wind Projects — Flicker		
·	Lab Exercise: Flicker Evaluation		
	-		

5:00 p.m. Adjourn

January 22 Agenda

7:30 a.m.	Continental breakfast at EPTC		
8:00 a.m.	Tour of Feeder Simulator and MultiSpeak Import		
	Engineering Distributed Wind Projects – Voltage Control		
	Lab Exercise: Capacitor Bank and Tap Changer Impacts		
9:45 a.m.	Break		
10:15 a.m.	Engineering Distributed Wind Projects — Overcurrent		
	Protection		
	Lab Exercise: Fault Clearing and Reclosing Impacts		
Noon	Lunch		
1:00 p.m.	Transmission Planning for Renewables in the West		
2:00 p.m.	Open Discussions and Q&A		
2:30 p.m.	Tour of Western's EPTC and Wind Simulator (Interactive		
	Demonstration of Wind Energy Operations)		
4:30 p.m.	Workshop adjourned		

January 23 Optional tour of National Wind Technology Center (NWTC)				
7:30 a.m.	Continental breakfast at EPTC	9:00 a.m.	Tour NWTC	
8:00 a.m.	Leave for NWTC	Noon	Return to EPTC	

Instructors:

Larry Flowers, National Renewable Energy Laboratory Tom McDermott, EnerNex Corporation Michael Milligan, National Renewable Energy Laboratory Bradley Nickell, Western Electricity Coordinating Council Mike Pehosh, National Rural Electric Cooperative Association Bob Putnam, CH2M HILL Tom Wind, Wind Utility Consulting

To register:

Participation is limited to the first 30 registrants. The registration fee is \$300. Register online at **http://windworkshop.govtools.us.**

For more information about the workshop agenda, contact Bob Putnam, CH2M Hill, 315-751-2638 or **rputnam@ch2m.com.**

Lodging:

Residence Inn by Marriott Denver West Golden 14600 W 6TH AVE., FRONTAGE ROAD Golden, CO 80401 303-271-0909

Marriott Denver West

1717 DENVER WEST BLVD. Golden, CO 80401 303-279-9100 **Holiday Inn Denver West Village** 14707 W. COLFAX AVE. Golden, CO 80401 303-279-7611

Courtyard by Marriott Denver West Golden 14700 W. 6TH AVE., FRONTAGE ROAD Golden, CO 80401 303-271-0776













