

VFD APPLICATIONS AND POWER QUALITY WORKSHOP

February 12, 2014

and

52ND ANNUAL RURAL ENERGY CONFERENCE

February 13-14, 2014

Radisson Hotel
La Crosse, Wisconsin



Sponsored by

Midwest Rural Energy Council
University of WI, MN, Iowa and South Dakota State
Extension
University of WI Biological Systems Engineering Dept.
University of MN Bioproducts and Biosystems
Engineering Department
Iowa State University Agricultural and Biosystems
Engineering Dept.
South Dakota State University Agricultural and
Biosystems Engineering

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for admission and employment.*

University of Wisconsin-Madison
College of Agricultural & Life Sciences

CALS Conference Services
640 Babcock Drive
Madison, WI 53706

Workshop Agenda

Variable Frequency Drives: Applications and Power Quality Workshop



Robin Priestley is a gifted speaker who engages his audience with a unique blend of humor and technical expertise.

The physics and science of power related engineering have never been more easily understood or enjoyable.

Robin's thirty years of experience solving power quality and control issues allow the discussion to focus on practical understanding and proven solutions. In his off hours, Robin facilitates programs related to risk management for the racing, rescue and first responder communities.

Never able to leave his love for the US Navy, he continues a passion for service via the USCG Auxiliary as a qualifications examiner and operations officer. Robin is a Power Control Manager for Rockwell Automation.

Wednesday, February 12

- 7:00 AM Registration and Refreshments
- 8:00 **VFD Applications and Power Quality Class**
- 12:00 PM Lunch
- 1:00 **VFD Applications and Power Quality Class (continues)**
- 5:00 Dinner

Please note: The conference and workshop are two different events. You can register for either one or both. Please see the registration panel.

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Tim Weir, Stearns Cooperative Electric Association (MI, WI)*

* Member of MN Rural Electric Association (MREA)

** Member of WI Electric Co-op Association (WECA)

Conference Agenda

This year's annual conference will focus on energy issues in agriculture. All of the break-outs will be presented multiple times so that you can choose from both tracks to design your own conference agenda.

Thursday, February 13

- 7:00 AM Registration & Refreshments
- 8:00 **Welcome and Conference Overview** - *Jim Biesterveld*, Dunn Electric Co-op, MREC President
- 8:15 **VFD Applications and Energy Savings in Agriculture** - *Robin Priestley*, Rockwell Automation
- 10:00 Break
- 10:15 **Smart Metering Issues** - *Alfonso Tarditi*, Electric Power Research Institute (EPRI)
- 11:00 **Affect of Fracking Sand mines on Rural Power Delivery Systems** - *Larry Loverude*, Xcel Energy
- 12:00 PM Lunch
- 1:00 **Breakout Session 1**
- 2:00 **Breakout Session 2**
- 3:00 Break
- 3:15 **Breakout Session 3**
- 4:15 **Breakout Session 4**
- 5:30 Dinner and Round Table
Discussion of Current Issues

Friday, February 14

- 7:30 AM Refreshments
- 8:00 **MREC Business Meeting** - *Bob Fick*, Alliant Energy, MREC Vice President
- 8:15 **Digester Economics** - *Bob Nagel*, Holsum Dairy

Friday, February 14 (continued ...)

- 9:00 **Dairy Farm Economics** - *Gary Sipiorski*, Vita Plus Corporation
- 10:00 Break
- 10:30 **Maximizing Cow Comfort for Maximum Production** - *Roger Mellenberger*, Michigan State University
- 11:30 AM **Adjourn**

Break-out Sessions

Track 1: Energy Issues on the Farm

- The First Community Wind Project in Wisconsin: An Innovative Public/Private Partnership**, *Wes Slaymaker*, WES Engineering, Inc.
- Grain Drying**, *Ken Helvang*, North Dakota State University Extension
- Dairy Barn Lighting**, *Scott Sanford*, University of Wisconsin-Madison
- Overview of Ventilation Techniques**, *Brian Holmes*, University of Wisconsin-Madison

Track 2: Stray Voltage/Power Quality

- Stray Voltage and Mastitis: A Review**, *Doug Reinemann*, University of Wisconsin-Madison
- Electric and Magnetic Fields (EMFs) Near Transmission Lines**, *Chuck Thompson*, Dairyland Power
- Stray Voltage and Livestock Health**, *John Roberts*, Wisconsin Department of Agriculture, Trade and Consumer Protection
- Stray Voltage Legislation Review**, *Paul Ortmann*, Idaho Power



Registration

Please refer to the registration panel for workshop and conference fees. The **VFD Applications and Power Quality Workshop fee includes** materials, breakfast, breaks, lunch and dinner. Hotel accommodations are not included in the fee.

The **Conference registration fee includes** materials, breakfast, breaks, lunch, reception, and dinner Thursday. Breakfast and a break is included on Friday. Hotel accommodations are not included in the fee.

Make check payable to: UW-Madison

Mail or fax to:

CALS Conference Services, 640 Babcock Drive
Madison, WI 53706; Fax: (608) 262-5088

Or register on-line at:

<http://www.mrec.org/>

Cancellations: In order to receive a full refund, you must cancel by contacting CALS Conference Services at (608) 263-1672 prior to February 1. If you fail to cancel by February 1, the full fee will apply. Substitutions are welcome at any time.

Questions: Call CALS Conference Services at (608) 263-1672.

Location & Lodging

A confirmation notice will be mailed upon receipt of registration. The conference will be held at:

The Radisson Hotel La Crosse
200 Harborview Plaza, La Crosse, WI 54601
Phone: (608) 784-6680 or (800) 333-3333.

A block of rooms has been reserved until January 21, 2014 for conference participants at the nightly rate of \$115/one king bed-city view or \$125/two queen beds-river view, plus 13.5% taxes. Be sure to mention that you are attending the MREC Rural Energy Conference to receive the special rate.

Registration Form

52nd Annual Rural Energy Conference & Workshop February 12-14, 2014

Complete a separate registration form (or copy) for each registrant or register on-line at:
<http://www.mrec.org/>

Early registration deadline is February 1, 2014

Name _____

Company _____

Address _____

City/State/Zip _____

Daytime Phone _____

E-mail _____

The workshop and conference are separate events. You can register for one or both.

VFD Applications and Power Quality Workshop - February 12

- \$ 175 (\$200 received after February 1)

Rural Energy Conference - February 13-14

- \$ 325 (\$350 after February 1)

_____ **Total Enclosed**

Payment must be made at time of registration.

Enclose fee. Checks payable to **UW-Madison**

Check enclosed

Please charge on the following account

VISA Master Card American Express or
 Discover

Card Number _____

Exp. Date _____ Name on Card _____

Signature _____

Register on-line at:
<http://www.mrec.org/>