

# 54th Annual Rural Energy Conference

March 3-4, 2016  
and

## Advanced Topics in Stray Voltage Investigation Workshop

March 2, 2016

Radisson Hotel  
La Crosse, Wisconsin



### Sponsored by

Midwest Rural Energy Council  
University of Wisconsin, Minnesota, Iowa and South  
Dakota State Extension  
University of Wisconsin Biological Systems  
Engineering Department  
University of Minnesota Bioproducts and Biosystems  
Engineering Department  
Iowa State University Agricultural and Biosystems  
Engineering Department  
South Dakota State University Department of Agricultural  
and Biosystems Engineering

## Workshop Agenda

### Advanced Topics in Stray Voltage Investigation Workshop



This year's pre-conference workshop will be presented by Mike Stringfellow (PowerCET Corporation), Doug Reinemann (UW-Madison), Chuck DeNardo (We Energies) and Mark Cook. Gain a deeper understanding of stray voltage issues and learn from others who work in the field. Advanced Topics in Stray Voltage Investigation include: measuring DC voltage, review of research on the cow contact circuit and cow resistance values, 4-wire systems and testing for interconnects, and a historical overview of stray voltage investigation techniques.

### Wednesday, March 2

- 12:45 AM Registration. Lunch on own.  
1:00 Advanced Topics in Stray Voltage Investigation - *Mike Stringfellow* PowerCET Corporation, *Doug Reinemann*, University of Wisconsin-Madison, *Chuck DeNardo*, We Energies and *Mark Cook*  
5:00 Workshop ends. Dinner on own.

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

## MREC Officers, Executive Committee and Board of Directors

### Officers

President - Paul Gillis, Dairyland Power (IA, IL, MN & WI)  
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Treasurer - Chuck DeNardo, We Energies (WI)  
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Jim Johnson, Otter Tail Power (MN, ND)  
Van Kelly, South Dakota State University (SD, ex-officio)  
Corey Kuchta, WI Public Service (MN & WI)  
Jerry Sorenson, Riverland Energy (WI)  
Steve Stackhouse, Oconto Electric Co-op (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 breakouts will be presented twice so that you can choose from both tracks to design your own conference agenda.

### Thursday, March 3, 2016

- 7:00 AM Registration & Breakfast  
8:00 **Welcome and Conference Overview**  
- *Paul Gillis*, Dairyland Power Cooperative, MREC President  
8:15 **Where Are We Today with Digesters?**  
- *Steve Dvorak*, DVO Anaerobic Digesters  
10:00 Break  
10:15 **Cross-ventilated Dairy Barns** - *Dean Doornink*, D & S Ag Operations, Baldwin, WI  
11:00 **Large Electrical Designs on Farms** - *Ron Janikowski*, Badger State Consulting  
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 Buffet Dinner and Round Table  
**Discussion of Current Issues**

**Exhibits and posters** will be on display all day Thursday. Presenters will be available during breaks.

### Friday, March 4, 2016

- 7:00 AM Breakfast  
8:00 **MREC Business Meeting** - *Kevin McLean*, Minnesota Power, MREC Vice President  
8:15 **Assessing Animal Exposure Risk from Stray Voltage Test Results**  
- *Doug Reinemann*, University of Wisconsin-Madison

### Friday, March 4 (continued ...)

- 9:00 **The Midwest Role in World Dairy Trade** - *Mark Stephenson*, University of Wisconsin-Madison Center for Dairy Profitability  
10:00 Break  
10:30 **Update on Nuclear Energy and the Clean Power Plan** - *Paul Wilson*, University of Wisconsin-Madison  
11:30 AM **Adjourn**

## Thursday Breakout Sessions

#### Track 1: Energy Issues on the Farm

- LED Lighting and the Farm**, *Bart Schultz*, LED Illumination Specialists
- Energy Efficiency Measures and Herd Size**, *Fred Daniels*, Franklin Energy Services and *Nicole Zaidel*, Focus on Energy
- Geothermal Heating and Cooling**, *Steve Stackhouse*, Oconto Electric Cooperative
- Dairy Diagnostics: Practical Dairy Farm Management**, *Dan Schultz*, Farmer, Taylor, WI

#### Track 2: Farm Wiring and Electrical Safety

- New Minnesota Stray Voltage Guide**, *Tim Weir*, Weir Engineering Services and **South Dakota Stray Voltage Law**, *Ed Anderson*, South Dakota Rural Electric Association
- Update on Livestock Diseases: Avian Flu and More**, *Darlene Konkle*, WI DATCP
- IEEE Guide to Understanding, Diagnosing and Mitigating Stray and Contact Voltage**, *Chuck DeNardo*, We Energies
- Regional and National Transmission Projects**, *Ben Stearney*, North Region Operations Center of MISO (Mid-continent Independent System Operator)



## Registration

Please refer to the registration panel for workshop and conference fees. **Advanced Topics in Stray Voltage Investigation Workshop** fee includes materials, snacks and break, (lunch and dinner is on your own). Hotel accommodations are not included in the fee.

The **Conference registration fee** includes materials, breakfast, breaks, lunch, reception, and dinner buffet Thursday. A breakfast and 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 19. If you fail to cancel by February 19, the full fee will apply. Substitutions are welcome at any time.

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

## Location and 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 February 1, 2016 (or until all rooms are reserved, whichever comes first) for conference participants at the nightly rate of \$123/one king bed-city view or \$133/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

54th Annual Rural Energy  
Conference & Workshop  
March 2-4, 2016

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

Early registration deadline is February 20, 2015

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Daytime Phone \_\_\_\_\_

E-mail \_\_\_\_\_

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

**Advanced Topics in Stray Voltage Investigation Workshop - March 2**

\$ 195 (\$220 received after February 20)

**Rural Energy Conference - March 3-4**

\$ 345 (\$370 after February 20)

\_\_\_\_\_ 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/>