

2002
RURAL ELECTRIC POWER CONFERENCE

Papers Presented
at the
46th Annual Conference
Colorado Springs, Colorado

May 5 – 7, 2002

Sponsored by

The Rural Electric Power Committee
of the
IEEE Industry Applications Society

of

The Institute of Electrical
And Electronics Engineers, Inc.
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2002 IEEE RURAL ELECTRIC POWER CONFERENCE
Program Schedule

Sunday, May 5, 2002

- 8:00 AM – 10:00 AM **Registration Set Up (Committee)**
Registration Desk
- 10:00 AM – 8:00 PM **Registration**
Registration Desk
- 10:00 AM – 4:00 PM **Set Up Exhibits**
Summit Ballroom
- 3:00 PM – 4:30 PM **Committee Business Meeting**
- 4:30 PM – 8:00 PM **Vendor Display/Exhibitions**
Summit Ballroom
- 4:30 PM – 8:00 PM **Reception**
Summit Ballroom

Monday, May 6, 2002

- 7:00 AM – 8:00 AM **Conference Breakfast**
Heritage D, E & F
- 7:00 AM – 4:00 PM **Registration**
Registration Desk
- 8:30 AM **Open Conference**
Heritage A, B & C
Presiding: Walt Jones, Chairman REPC
Announcements – REPC Officers
Keynote Address:
- 9:30 AM **Technical Session “A”**
Heritage A, B & C
Moderator: Walt Jones
- 9:30 AM **“Transformer Design for Dual-Voltage Applications”**
H. Jin Sim, Waukesha Electric Systems
Scott H. Digby, Waukesha Electric Systems
- 10:00 AM **Coffee Break**

2002 IEEE RURAL ELECTRIC POWER CONFERENCE

Program Schedule (continued)

Monday May 6, 2002 (continued)

- 10:30 AM **Technical Session “A” (continued)**
- 10:30 AM **“Considerations for Pad-Mounted Transformer Placement”**
Edward S. Thomas, P.E., Utility Electrical Consultants PC
Keith Thomason, P.E., Middle Tennessee Electric Membership Corp.
- 11:00 AM **“Effect of High Frequency Cable Attenuation on Lightning-Induced
Overvoltages at Transformers”**
Li-Ming Zhou
Dr. Steven A. Boggs, University of Connecticut
- 11:30 AM **“Distributed Padmounted Substations”**
Tom Nordrum, Cooper Power Systems
Russell Zell, Cooper Power Systems
Dave Peterson, Fall River Rural Electric Cooperative
- 12:00 Noon **Lunch**
Heritage D, E & F
- 2:00 PM **Technical Session “B”**
Heritage A, B & C
Moderator: Dan Brewer
- 2:00 PM **“Fault Detection and Location on Electrical Distribution System Case
Study”**
Glenn C. Lampley, P.E., C.E.M.
- 2:30 PM **“Eliminating Bird Streamers as a Cause of Faulting on Transmission
Lines”**
Richard Harness, EDM International, Inc.
Chris Van Rooyen, Endangered Wildlife Trust
Hein Vosloo, Eskom Transmission Group
- 3:00 PM **Coffee Break**
- 3:30 PM **“Predictive Distribution Reliability Analysis Considering Post Fault
Restoration and Coordination Failure”**
C. Wayne Carr, P.E., MILSOFT Integrated Solutions
- 4:00 PM **“Sectionalizing-Adapting to High Growth on a Rural System”**
Pamela L. Beavis, P.E., Stanley Consultants, Inc.
- 4:30 PM **Adjournment**

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Monday May 6, 2002 (continued)

4:30 – 8:00 PM **Equipment and Computer Exhibits**
Summit Ballroom

5:00 – 7:00 PM **Reception**
Summit Ballroom

Tuesday, May 7, 2002

7:00 AM – 8:00 AM **Conference Breakfast**
Heritage D, E & F

7:00 AM – 4:00 PM **Conference Registration**
Registration Desk

8:30 AM **Technical Session “C”**
Heritage D, E & F
Moderator: Wayne Carr

8:30 AM **“The 2002 National Electrical Code: Changes Affecting Rural Applications”**
LaVerne E. Stetson

9:00 AM **“Steel Grounding Design Guide and Application Notes”**
P. K. Sen, Ph.D., P.E., Colorado School of Mines
John P. Nelson, P.E., NEI Electric Power Engineering
Keith Malmedal, P.E., NEI Electric Power Engineering

9:30 AM **“Energy Conservation with Voltage Reduction-Fact or Fantasy”**
Tom L. Wilson, PCS UtiliData

10:00 AM **Coffee Break**

10:30 AM **“Power Quality Solution Alternatives for Low and Medium Voltage Continuous Process Loads”**
Bradford P. Roberts, P.E., S&C Electric Company

11:00 AM **“The Benefits of Networked SCADA Systems Utilizing IP-Enabled Networks”**
Robert H. McClanahan, Arkansas Electric Cooperative Corporation

11:30 AM **“Intelligent Electronic Device (IED) Technology SCADA and 3 Ø Metering”**
Richard L. Alexander, P.E.,

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Program Schedule (continued)

Tuesday, May 7, 2002 (continued)

- 12:00 Noon **Lunch**
Heritage D, E & F
- 1:30 PM **Technical Session “D”**
Heritage A, B & C
Moderator: Ed Thomas
- 1:30 PM **“Distributed Generation in Autonomous and Non-Autonomous Micro
Grids”**
Cameron L. Smallwood, P.E., United Electric Cooperative Services, Inc.
- 2:00 PM **“The Application Guide for Distributed Generation Interconnection”**
Robert Saint, National Rural Electric Cooperative Association
N. Richard Friedman, Resource Dynamics Corporation
- 2:30 PM **“Distributed Generation Impact on Reliability and Power Quality
Indices”**
Thomas E. McDermott, Electrotek Concepts
Roger C. Dugan, Electrotek Concepts
- 3:00 PM **Door Prizes – “You Must Be Present to Win”**
Closing Announcements
Conference Adjournment

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Program Schedule (continued)

Wednesday, May 8, 2002

Upgrading Your Grounding Skills Tutorial

Sponsored by National Food and Energy Council

Utility Interconnects and On-Site Generation Tutorial

Sponsored by National Food and Energy Council

One-Day Distribution OverCurrent Protection Tutorial

Sponsored by Cooper Power Systems

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