

# IEEE Distribution Subcommittee (15.06)

Meeting Minutes

Wednesday, June 21<sup>st</sup>, 2006 – 1:00 PM to 4:00 PM

## 1. Welcome and Introductions

Cheri Warren, Subcommittee Chair, called the meeting to order and introductions were made for all 35 attendees.

## 2. Approval of Minutes of the January 18<sup>th</sup>, 2006 Las Vegas Meeting

The draft meeting minutes were approved unanimously with the following corrections:

- Pg 6, Insulated Conductors report item 1) the last sentence should read “The Guide is being updated and ...”.
- Page 8, Discussion, the first line in the first paragraph should read ‘We thank Don Hall for co-chairing...’.

## 3. Chair’s Report

(See attached Report)

Cheri Warren

## 4. Vice Chair’s report

(See attached Report)

John McDaniel

## 5. Working Group/Task Force Reports and Discussion

a) Distribution Reliability

- Working Group Part 1 - Tuesday 2:00 PM to 4:30 PM Rodney Robinson

\* *Reliability Design Task Force* - 38 attendees

Tom Short chaired the TF meeting. The TF decided to develop a special IEEE publication that will be a compilation of various papers, information and tutorial with a practical focus to improving reliability. The publication will include information on protective device coordination, asset management issues, faultfinding practices, etc. Tom Short and Charlie Williams will begin the process and present the outline of topics to be included at the next meeting.

\* *Interruption Reporting Practices Task Force*

Rodney Robinson &  
Val Werner

38 attendees

The TF completed the publication of their 2<sup>nd</sup> white paper and, after much discussion agreed to go ahead and begin putting together the trial use guide based on the two papers and the extensive outline of the third white paper already developed by the members.

Also, the TF agreed to have a panel session in the 2007 Tampa meeting on the real-time usages of the reliability data available from company OMS and interruption records.

After discussing various companies CEMI programs and state requirements, the group agreed to further compile the various companies' CEMI procedures and practices along with any state requirements for these customers and provide the results at future meetings.

- Working Group Part 2 – Wednesday 1:00 to 4:00 PM Cheri Warren  
46 attendees

The WG had a presentation from SDG&E (Tom Bialek) on their proposed duration index 'SAIDET'. After much discussion, the WG agreed to have a subgroup discuss the current IEEE 1366-2003 duration indices along with this and other indices and provide a recommendation to the WG. Also it was agreed that a panel session on their work would be held in the 2007 summer General Meeting.

The WG discussed 'weather normalize' methods and practices being used by various utilities to compare year-to-year results in light of the weather variation from year to year and agreed to set up a subgroup to investigate further. It was also agreed to have their results included as a panel session in the 2007 summer general meeting.

- b) Switching and Overcurrent Protection 15.06.04 Charlie Williams  
Charlie Fijnvandraat gave the report.  
The tutorial on Network Systems has been completed and Charlie will head up a 6-hour tutorial to be offered on Sunday before the 2007 General Meetings.

It was further noted that the WG will develop a white paper on Overcurrent protection and begin develop an Application Guide to provide protection schemes. The group will also establish a liaison with the Reliability Design TF, Power System Relay Committee and the Distribution Automation WG to make sure the guide does not overlap other groups' activities and interfaces as appropriate.

The WG is planning to have their next meeting in August (Webex) with liaisons and begin to develop the Guide outline.

- c) Distribution Automation 15.06.08 Doug Staszkesky  
19 attendees  
The WG chose new officers, Doug Staszkesky as chair, N.D.R. Sarma as vice-chair and Georges Simard as secretary.

The WG is developing a tutorial and currently plans to have two panel sessions at the 2007 General Meeting.

The first organized by George Simard will cover the “Economic Justification of Distribution Automation”

The second panel session chaired by Doug Staszkesky will discuss the “Communication and Information Management Technologies for Distribution Automation”.

- d) Distributed Resources Integration Bob Saint  
The WG white paper “Impacts on Distributed Generations” is out for review and is planned to be presented at the 2007 General Meeting.

The WG is on a fast track to developed an annex for 1547.2 “Application Guide for Distributed Resources Interconnections”. Their next meeting is planned August 3-4. The subcommittee discussed the need for balloting an annex to the guide and Bob agreed to be the liaisons between the standards group and the group developing the annex.

- e) Electrical Testing of Wildlife Protectors Jim Bouford  
The WG has held numerous Webex meetings over the past year and has their Guide ready for balloting. Jim noted that this WG has made significant progress over the prior three years to bring the group together and be in agreement on the standard.

- f) Distribution System Performance  
This WG will be disbanded and the scope of the group will be included in the Distribution Reliability WG.

- g) Voltage and VAR Control  
This working group did not meet.

- h) Stray Voltage  
The WG changed their title to “Working Group on Voltages in Publicly and Privately Accessible Locations”. Also the WG finalized their Scope and the title of the guide to be developed. There was a consensus to proceed with this direction for the WG.

Charlie Williams stepped down as WG chair and Chuck DeNardo accepted the chair responsibilities for the WG.

A subgroup of the WG will use existing information and put together a draft for the WG to review at the next meeting. The WG will be soliciting input as to what needs to be included in the guide based on the new scope.

- i) Lightning Protection John McDaniel  
This working group is under the Lightning and Insulator (L&I) Subcommittee. Recently, the new L&I SC chair combined the Transmission and Distribution

working groups into one. On the distribution side, the group will be submitting a PAR to revise its standard, 1410-2004 “IEEE Guide for Improving the Lightning Performance of Electric Power Overhead Distribution Lines”. The major revision will be to the induced voltage models in the Guide.

## 6. Liaison Reports

The subcommittee discussed the list of liaison reports to determine if we have the correct related groups and that we have assigned liaisons for these groups.

It was agreed that we need to include the Power Quality group and Val Werner noted that he attends their meeting and is willing to act as liaison.

- a) Insulated Conductors John Banting  
The single-phase application guide is out for balloting at this time. Thus far only three comments have been received that are anticipated to be easy to resolve.  
  
P1610 went to the IEEE editorial board and is anticipated to go out for balloting later this year.  
  
P495 is up for updating and it is not anticipated to begin very soon. The PAR will be submitted.  
  
P1675, hardware standard for couplers on OH and UG conductors, draft 6 version 1 is planned for balloting this September.  
  
P1775, EMT testing methods for board band draft 2 is holding their meeting at this time to finalize preparing to ballot in September.  
  
P1901 The subcommittee discussed the fact that this WG is charging a separate fee to participate in their WG meeting, \$250 per person.  
  
Cheri Warren agreed to contact **John ?** to line up liaisons for the groups not already being represented.
- b) Power System Communications - BPL John Banting  
John will provide the Broad Band Power Line information to Cheri warren for comments.
- c) Surge Protective Devices  
No report was made.
- d) SCC 21 Bob Saint  
1547.1 Testing has been completed and the standard is published.

1547 is complete.

1547.3, Data Exchange and Communications Guide has recently been completed balloting.

1547.4 Intentional Islanding Guide is getting started.

1547.6 Guide on secondary networks is also just getting started.

Bob noted that all of the above groups would be meeting separately in Las Vegas August 1<sup>st</sup> thru 4<sup>th</sup>.

- e) Women in Energy  
No report was available.

## 7. Standards Activities

- a) ANSI Bob Saint  
C84.1 Electric Power System and Equipment Voltage Rating – Bob discussed the follow topics:
  - There is nothing in the standard on how to measure sustained voltages, probably covered in IEEE 1159 power quality standard.
  - The table listing all types of devices is confusing and will probably be taken out.
  - The draft is already to members of the committee and Bob will send a copy to Cheri Warren for review.
- b) NESC Bob Saint  
The changes that resulted in the latest revision are complete and will be to the publisher in August. The key issues of 50-foot exclusion and the loading on poles were not passed in this revision. They are anticipated to come up again.
- c) NEC  
No report was available.

## 8. Presentation – Richard Brown discussed “How Hurricanes have affected FPL’s reliability”

Richard discussed the damage experienced specifically during hurricane Wilma in 2005 on the FPL’s system. FPL had 12,000 poles broken (only ~200 of these were concrete). This was approximately 1.5 % of the poles exposed to the severe winds.

FPL set up forensic teams immediately after the storm to do a sample inspection of the broken poles to gather as much of the information about age, size, type and location of failure, number and size of attachments, equipment installed on the pole, etc.

Key findings:

- Pole performance was normal and comparable to previous hurricanes
- Wind was the main cause of the pole breakage
- Deterioration and grade of poles was not determined to be important factors
- Many of the pole failures involved adjacent structures, cascading occurred.
- They had as many leaning poles as they did broken poles
- Most of the vegetation problems were from trees outside the right-of-way.

FPL is beginning a 10 to 20 year project to storm harden the distribution system at a costs of \$300 million per year. They will begin over the next 2 years to harden circuits serving critical customers such as hospitals and critical care facilities.

The hardening methods under consideration include:

- Installing poles deeper, approx. 10 feet
- Increase design to class B with extreme winds
- Shorter spans
- Smaller conductors
- Guying perpendicular to the line

#### **9. Presentation on IEEE Topics of Interest – Chairing a Working Group – What’s Involved?” John McDaniel**

John discussed the responsibilities of the WG chairs and the standards development activities. The IEEE-SA web site has links to several procedures, such as the PAR process, draft standards templates and approval steps.

John noted that PAR’s are good for 5 years and can be extended one time.

The IEEE-SA website also includes all of the WG chairs and Cheri Warren agreed to have this information updated.

#### **10. Panel/Tutorials Sessions and Paper Presentations for Future Meetings**

- “Use of Real-time Data for Reliability Analysis” panel session – Val Werner to chair
- “Economic Justification of Distribution Automation” panel session - Georges Simard to chair
- “Communication and Information Management Technologies for Distribution Automation” panel session - Doug Staszkesky to chair
- “Duration Reliability Indices” panel session – chair Tom Bialek
- “Weather Normalization: The Impact on Reliability” panel session – Vince Forte to Chair Session, Tom Short to Chair group
- WG white paper “Impacts on Distributed Generations” to be presented at GM07

- Network Systems 6-hour tutorial to be offered on Sunday before the 2007 General Meetings. Charlie Fijnvandraat to coordinate

### **11. Open Discussion on Related Distribution Topics**

The group discussed the small attendance (only three individuals) at the PES Standards Committee session and Cheri Warren agreed to determine the direction of this Committee.

T&D committee Assignments

- Meeting Coordinator – This position covers the room and space issues, makes sure that everything is covered for the attendees. We still need a volunteer.
- Panel Session Coordinator – Rodney Robinson was assigned this responsibility. Everyone needs to submit their rooms needs to Rodney so that he can make final arrangements with Bill Chisholm.

Cheri Warren handed out a sample aerial patrol documentation package showing the detailed level items for follow up by the utility. This company charges approx. \$200 per mile inspected.

John McDaniel described a recent transmission line outage in New Zealand that caused over 700,000 customers in the City of Auckland to experience a sustained interruption

### **12. Meeting – review room requests**

See above (No.10 agenda item) panel and tutorial session discussion

### **13. Next Subcommittee meeting**

George Simard, Hydro Quebec will present their Ice Storm Hardening methods and practices

### **13. Adjourn Subcommittee meeting**

Motion to adjourn (1<sup>st</sup> Jim Bouford/2<sup>nd</sup> John Banting) – unanimously approved and meeting was adjourned.