

# IEEE P1409 Custom Power Task Force (15.06.05.01)

## Meeting Minutes

2003 IEEE/PES Transmission & Distribution Conference & Exposition  
Dallas, Texas, USA

Thursday, September 11, 2003, 2:00 – 4:00 PM  
Hyatt Regency Dallas, Moreno AB

The IEEE P1409 Distribution Custom Power Task Force met on September 11, 2003, from 2:00 to 4:00 PM. The task force chair, Ambra Sannino, chaired the meeting.

### ***Introduction***

The chair called the task force meeting to order at 2:15 PM. The agenda for the meeting was reviewed. A total of 9 people signed the attendance list (See Table 1).

**Table 1: Attendance List for September 2003 Meeting of the Distribution Custom Power Task Force**

Name	Company
Randy Collins	Clemson University
Russ Ehrlich	Conectiv Power Delivery
Richard Evans	Power Monitors Incorporated
Mark Mc Granaghan	EPRI-PEAC
Charles Perry	EPRI-PEAC
Greg Rauch	Schweizer Eng. Laboratories
D. Daniel Sabin	Electrotek Concepts
Ambra Sannino	Chalmers University of Technology
Timothy D. Unruh	Custom Energy

### ***Minutes from Last Meeting***

The last meeting of the task force was at the 2003 IEEE/PES T&D Committee Meeting in Las Vegas. The chair summarized the minutes from that meeting. The minutes were approved.

### ***Update on PAR extension***

The chair reported that the PAR extension request that had been filed last year by Jim Burke and Dan Sabin was approved on March 20<sup>th</sup>, 2003. The PAR is now extended until December 31<sup>st</sup>, 2004. The names of the TF chair and the WG chair in the approved PAR extension are not current, and therefore a “form for officer change” will have to be filed and sent to the IEEE Standards Board. Ambra, together with the WG Chair Marek Waclawiak, will do that after the meeting.

## Review of IEEE P1409/D10

The group spent most of the time reviewing Draft 10 of IEEE P1409, which was posted to the web site at <http://grouper.ieee.org/groups/1409/> the week before the meeting. By going through the document page by page, all changes made in going from Draft 9 to 10 were reviewed and most of them were kept. Most changes resulted from action items from the last meeting. The list of action items in the minutes of last meeting was reviewed and those that had not been resolved in Draft 10 were re-assigned. The most important decisions taken are: to simplify the structure of Chapter 7 on measurements, to look for a new case study for Section 8.2.2 and to add more information on the section on “phase jump.” Also a definition for phase jump should be added and a paper reference. See the table below for a summary of the action items identified. Ambra will complete the final draft by the end of October 2003 and put it on the web site for the members to download it and give their comments. It was agreed that the main focus of the next TF meeting will be on balloting issues.

**Table 2: Summary of Action Items, IEEE Distribution Custom Power Task Force September 2003 Meeting**

Action #	Task	Assigned To
2003-01	File “officer change form” for IEEE Standards Board	Ambra Sannino, Marek Waclawiak
2002-14	Provide better explanation of Table 4-1 and 4-2	Dan Sabin (reassigned)
2003-02	Insert more information on the CEA DPQ Study in Section 4.3. Provide reference information for the CEA DPQ results.	George Simard (Ambra will check with)
2003-03	Check with Chris Wyatt of S&C about transformer for SSC (single-phase or three-phase)	Ambra Sannino
2003-04	Add further explanation on phase angle jump of sag (Section 6.2.1.2). Add paper reference and definition of phase-angle jump in Section 3.	Math Bollen
2003-05	Restructure Chapter 7 on Performance Measurements	Ambra Sannino
2003-06	Obtain one-line diagram and paper reference for case study in Section 8.1.3	Ambra Sannino, Dan Sabin
2003-07	Obtain data points for Figure 8-8 and Figure 8-9 in order to make waveform charts consistent with other waveforms in the document.	Ambra Sannino, Dan Sabin
2003-08	Add paper reference to case study in 8.2.1.1	Ambra Sannino
2003-09	Change titles in plots of Figure 8-12 and Figure 8-13	Dan Sabin
2003-10	Get new case study for Section 8.2.2	Ambra Sannino, Charles Perry
2002-29	Finish the case study in Section 8.3 from reference B26	Ambra Sannino (re-assigned)
2002-30	Redraw plots in Section 8.3	Ambra Sannino, Dan Sabin (re-assigned)
2003-11	Complete minutes to meeting and post to web site	Ambra Sannino, Dan Sabin

## Report on Panel Session at T&D conference and exhibition

The TF sponsored a panel session, which took place on Tuesday 9<sup>th</sup> September from 8 to 10 AM at the T&D Conference and Exhibition in Dallas. Mark Mc Granaghan organized and chaired the session. He reported that, according to the program, four presentations were given: one by Ambra on the status of the P1409 guide; two by manufacturers of Custom Power equipment (S&C and ABB) presenting new installations, and one by Mark on economics of Custom Power.

The session was quite well attended with an average of 50 people in the room. An interesting remark by the manufacturers present was that the status of these technologies is now so mature that their application is no longer limited to utility-financed demonstration projects.

### ***New business***

The group had a discussion on how to continue the work after the guide is completed. The following points were raised and discussed:

- Ambra proposed to update the Custom Power Technology Development list.
- Mark Mc Granaghan proposed to establish a database on existing Custom Power installations, or a directory of case studies. This should be made available to the general public e.g. via the TF web site. Mark mentioned that a similar directory has been successfully set up by the WG on HVDC. It was noted that all case studies should be presented in a consistent format. However, a template was not discussed at this point. Mark noted that it is important to actively involve the manufacturers. The general feeling of the group was that this activity should be started only after the Guide is completed.
- In line with the discussion had at the previous TF meeting in Las Vegas, the group reaffirmed its interest in forming a new “Power Quality Solutions Working Group.” Ambra reported that, after discussions in the Distribution Voltage Quality WG, the Chair of the PQ Subcommittee Tom Gentile suggested that all members and guests be informed about the proposal. Ambra sent out a poll via the P1409 mailing list before the T&D conference. About 10 TF members replied that they want to join the WG, and 2 members replied that they support the idea. Neil Woodley expressed concerns on broadening too much the scope of the group, which could lead to losing focus. The group agreed to present a proposal to the PQ Subcommittee. The Custom Power TF will continue its work under this WG. It was suggested to also move P1346 under this WG, as well as to form another TF on power quality solutions for low voltage. It was mentioned that the idea should be further discussed with IAS people in order to set up a joint WG with two co-chairs. Ambra volunteered to take this matter up during the next IAS annual meeting in Salt Lake City in October.

### ***Next Meeting***

The next meeting will be at the January 2004 meeting being planned by the IEEE Transmission and Distribution Committee in San Diego.

*Minutes recorded by Ambra Sannino*