

IEEE P1409 Custom Power Task Force (15.06.05.01)

Meeting Minutes

IEEE/PES 2002 Winter Meeting
New York, New York, USA

Tuesday, January 29, 2002, 8:00 AM to 10:00 AM
New York Hilton and Towers, Rhineland Center

Introductions: Dan Sabin called the task force meeting to order at 8:01 AM. The agenda was reviewed, and attendees introduced themselves, identifying their names and company affiliations. A total of 27 people signed the attendance list, a summary of which is attached. The current membership database includes 46 members and an additional 187 people who have registered over the years as guests. Dan reported that the minutes from the last meeting were posted to the web site last week, as well as draft 7 of IEEE P1409.

Minutes from Vancouver: The last meeting of the task force was at the 2001 IEEE/PES Summer Meeting in Vancouver, British Columbia. Sabin summarized the minutes at that meeting.

Discussion of IEEE P1409/D7

The IEEE P1409 Application Guide was again passed out to attendees for review in breakout sessions. The attendees then broke into discussion groups to discuss the individual chapters, led by appointed spokespersons. At the end of the breakout session, each spokesperson reported on their recommendations.

Chapter 3: Definitions. Ambra Sannino reported for the definitions group. She said that the term “DSTATCOM” was not defined, and that it should be added. Her group also suggested that this text be added to the static shunt compensator term: “In the context of this guide only the application in distribution system will be considered. (See also DSTATOM).” They also suggested that a definition be added for “DSTATCOM” as a “static Shunt Compensator used in distribution systems.” The group asked that definition 3.8 for “distribution static var compensator” be removed, as it was a duplication of 3.42. The group asked for the removal of 3.45 (SMES) because it is not used in the rest of the document. However, the term “super conducting magnetic energy storage” was used in numerous places throughout the document, so it did not appear that removing it would be necessary.

Chapter 4: General Needs. Dan Sabin discussed the changes in this chapter. The major changes would only be editorial in nature. The following items will be deleted due to redundancy from Table 4-4: “motor generator sets” and “ridethrough rotary filter” from solutions to “Voltage Sags and Swells” and “Voltage Interruptions.” In addition, “reconductoring feeder” would be deleted, but “construction of a new feeder” would be modified to “construction of a new or updated feeder.” Georges Simard volunteered to provide CEA distribution power quality survey results to supplement the EPRI DPQ results that were presented in Tables 4-2 and 4-3.

Chapter 5: Configurations and Performance Objectives. Brian Johnson reported for this subgroup. They recommended that we add to the introduction a sentence that says “shunt-connected controllers protect the system from the load, while series-connected controllers protect the load from the system.” Neil Woodley volunteered to write this part. They also suggested that edit Table 5.1 by reducing redundancy in the footnote numbering. He reported that they also discussed how well the matrix represents chapter. Section 5.3.4 needs a figure. Doug Staszsky volunteered to provide a suitable one. In section 5.4.4.1 Neil will add material about the application of static and shunt connected compensator. There is a possibility of confusion with the acronyms used by the IEEE P1409 Guide and the Substations Committee. Figure 5-1 and 5-2 should use acronym defined LES, SES. The caption for Figure 5-6 is on page 28 while the figure itself is on page 27.

Chapter 6: Application Considerations. Jim Burke reported on this group’s activity. The chapter needs to add information on what at STS must consider when the system when restored to normal. The subgroup also recommended that this be added to the requirements for BSES storage: “must consider the cost and maintenance requirements of the energy storage system. Mark McGranaghan and Jim Burke noted numerous additions that were needed in this chapter and submitted them in a mark-up copy for the next P1409 draft.

Chapter 7: Performance Objectives. Chris Melhorn reported on the discussion in this subgroup. The group had made major changes to the outline and has written a large portion that was not submitted in time for the latest revision. Larry Morgan will supply a performance graph and purchase specification list of thing to consider when purchasing customer power equipment. The next revision will have the new information. Comments and additions will be sent to the task force chair by March 1, 2002 and a new draft will be sent by May 1. The chair will post the next draft of the chapter with the next draft of the guide by June 1.

Chapter 8: Case Studies. Randy Collins led this subgroup discussion with John Kennedy, Andy Dettloff, and Frank Lambert. He thinks that much of this chapter needs chiefly editorial changes only.

- Section 8.1.1. There are no IEEE papers available on the SSC case study. There are however papers published in the CEA and a paper in a PowerSystems World proceedings. Neil Woodley volunteered to provide a reference for the CEA paper. We need to clean up the figures and to make them consistent with the remainder of the chapter and figure without channels. We will ask Tom LaRose to provide data for the example.
- Section 8.1.2. In the Transfer Switch section label, we need to add the location of the monitoring points in the one-line diagram. We will also try to synchronize time scale on the plots. We need to add a plot showing the load (customer) side voltage and current. Andy Dettloff volunteered to complete these tasks.
- Section 8.1.3. We should eliminate the phrase “power quality variations” substituting instead “rms variations.” We should use the phrase “sensitive manufacturing.” We need to make the figures more consistent by getting original data files. We need to add more information on statement and solution (i.e., why was this device chosen, and were there any alternatives?). We also need paper references.

- Section 8.2.1. We need waveforms and a paper reference. Change “Solutions Chosen” to “Solution.”
- Section 8.2.2. We need better graphics and a paper reference. Change “Solutions Chosen” to “Solution.”
- Section 8.2.3. The case study for the Distribution Series Capacitor will not be added, as we do not treat this device as a custom power controller. However, John Kennedy would like to add some “cautions” to 5.4.2 page 34.
- Section 8.3. We need to find a case study for the Custom Power Park, and to look at adding it to chapter 5.

Chapter 9: Economics. This chapter was not review at this session.

Chapter 10: References. We need to add an IEEE paper reference on distribution series capacitors.

Next Drafts

The next draft of the IEEE P1409 is to be posted by June 1. New material will be submitted to the chair over the next few months.

Next Meeting

The IEEE P1409 Task Force plans to meet next at the IEEE/PES 2002 Summer Meeting on Tuesday, July 23, 2002 in Chicago.

PAR Extension

The PAR for IEEE P1409 will expire in June 2002. Dan Sabin and Jim Burke agreed at the meeting of the Working Group on Voltage Quality that they would complete the PAR extension request form on-line together during the week of February 4, 2002.

Attendance List

The following 27 people signed the attendance list for the IEEE P1409 meeting.

Name	Company	Name	Company
Math Bollen	Chalmers University	Larry Morgan	Duke Power
James L. Burke	ABB/ESC	Gregory L Olson	Public Service Electric & Gas
Randy Collins	Clemson University	Scott Peele	Carolina Power & Light Company
Andy Dettloff	Detroit Edison	Alberto Prudenzi	University of L'Arquila
Russ Ehrlich	Conectiv	Dave Russo	Seattle City Light
Dave Gilmer	Yampa Valley Electric Assn.	D. Daniel Sabin	Electrotek Concepts
Jon Jipping	Detroit Edison	Ambra Sannino	Chalmers University of Technology
Brian K. Johnson	University of Idaho	Michael Sheehan	Puget Sound Energy
John Kennedy	Georgia Power Company	Georges Simard	Hydro-Québec
W. O. Kramer	Silicon Power Corporation	Doug Staszsky	S&C Electric Company
David Kreiss	Kreiss Johnson Technologies	David Vannoy	Enerwise Global Technologies
Frank Lambert	Georgia Tech - NEETRAC	Marek Waclawiak	United Illuminating Company
Mark McGranaghan	Electrotek Concepts	Neil H. Woodley	Siemens Power T&D
Chris Melhorn	EPRI PEAC Corporation		

Minutes recorded by Scott Peele and Dan Sabin