

CUSTOM POWER TASK FORCE

TF 15.06.05.01

Meeting Minutes

**IEEE PES 1996 Winter Power Meeting, Baltimore, Maryland
Tuesday, January 23, 1996, 3:00 - 3:45 PM
Hyatt Constellation F**

A meeting of the Custom Power Task Force was held prior to the Distribution Voltage Quality Working Group meeting at the Winter Power Meeting in Baltimore. The meeting was chaired by Harshad Mehta.

Introductions

Attendees introduced themselves; 47 signed the attendance list, a summary of which is attached. Attendees were asked to update their addresses, phone numbers, etc., on the membership list passed around. The updated membership list is also attached.

Minutes from Portland

The prepared for the last meeting of the task force at the IEEE PES 1995 Summer Meeting in New York were prepared and presented by Dan Sabin.

Chairman's Report

Harshad Mehta conceded that not much activity had been made on the task force over the last six months. However, he felt that this lack of activity did not reflect the recent flourish of work in developing custom power systems. The industry press has been keeping us to date with this work. Recent articles on custom power include:

IEEE Spectrum, June 1995

Introducing customer power

IEEE Spectrum, July 1995

Power electronics in action

Power ICs in the saddle

Toward multi-kiloampere and -kilovolt devices

IEEE Spectrum, December 1995

Chip-making in China

IEEE Spectrum, February 1996

Quality upgrades reliability

Since the industry is just beginning to pick up speed in developing custom power technology, it seems to make sense that work in the task force will continue. Based on this, Harshad considered it a priority that the chapter chairmen make significant progress with guide book chapters for the next task force meeting in Denver.

It was also agreed that a list of utilities would be drawn up that have installed or are about to install custom power devices.

Utility	Custom Power Initiative
Baltimore Gas & Electric	medium voltage subcycle transfer switch
Duke Power Company	dynamic voltage restorer
Pacific Gas & Electric	transfer switch
Commonwealth Edison	transfer switch
CINergy Corporation	15 kV, 600 A solid state fast transfer switch

Guidebook Reports

Most of the meeting was dedicated to reviewing presentations by chapter chairmen responsible for individual sections of the Custom Power Guide Book.

1. Definitions

Neil Woodley, Westinghouse Corporation

Neil reviewed his chapter on definitions. A few items not present in his current draft were identified (e.g., SMES). It was agreed that in future drafts of the chapter, the device names used should be of the more common, less manufacturer-specific variety. Neil made a key statement, saying that when writing the guidebook, we should think about “how to aid our peers with this information.”

2. General Needs

Dan Sabin, Electrotek Concepts, Inc.

One of the focal points of Dan’s section on general needs will be in relating the range of power quality disturbances occurring on electric power distribution systems. He will draw some incident rate information from recent papers which publish results from the Electric Power Research Institute research project, *An Assessment of Distribution Power Quality*.

Harshad Mehta suggested that a presentation of the EPRI DPQ Project be made at the Summer 1996 task force meeting. However, a panel session devoted to the topic was already planned for that IEEE PES conference. The panel session will take place on July 29, 1996 from 2:00 to 5:00 PM in the Hyatt Regency Hotel, Florentine Room in Denver.

3. Configurations/Objectives

Neil Woodley, Westinghouse Corporation

4. Input/Output

Larry Morgan, Duke Power Company

Larry Morgan will base much of his chapter upon his experience being gained from testing DVR technology at Duke Power. Testing is being performed in both the field and the laboratory. Of late, Larry has been working with Randy Collins of Clemson University. Together, they will make a presentation at the Summer 1996 task force meeting on a compiled a list of considerations for matching a device performance and sizing to sag waveform corrections. This presentation would serve as an introduction to the input/output performance chapter of the guide and will draw from the test procedure used with the EPRI/Westinghouse project. However, it will not contain any test procedures or results. This is not intended to be a detailed paper presentation but to be a framework for discussion.

5. Performance Measurements

Mark McGranaghan, Electrotek Concepts, Inc.

6. Case Studies

Ashok Sundaram, Electric Power Research Institute

Ashok gave an update on the installation of the first field trials of the dynamic voltage restorer, being developed under contract by EPRI. He also presented a brief methodology for his chapter, explaining that he will be able to draw upon his work with both the EPRI Distribution Power Quality Project and EPRI's custom power initiative.

7. Engineering Issues

Paul Stecuik, Power Technologies, Inc.

Paul was not present at the task force meeting.

8. Bibliography

Vladi Basch

Vladi volunteered to fill this role which had been left vacant.

9. Economics

Larry Morgan, Duke Power Company

Ram Mukherji, Private Consultant

New Business

It was agreed that the task force would not initiate any new business until progress was made with the guide book.

Action Items

Action	To be completed by:
1. Submit revised PAR	Secretary
2. Chapter chairman to have written detailed sections and delivered to the task force secretary within 90 days of the winter 1996 meeting	Guidebook Chairmen
3. Organize Custom Power Panel Session for IEEE T&D Conference in Los Angeles	Secretary

*The *Guidebook Chairmen* are Neil Woodley, Dan Sabin, Larry Morgan, Mark McGranaghan, Ashok Sundaram, Paul Stecuik, Vladi Basch, and Ram Mukherji

Upcoming Panel Session

“Custom Power Applications for Power Quality”
Monday, Sept. 16, 1996, From 2:00 to 5:00 PM
Sponsor: Transmission and Distribution Committee

Chair: Harshad Mehta, Silicon Power Corporation

What is Custom Power?

Ashok Sundaram, Electric Power Research Institute

Using Custom Power Technology for a Premium Power Quality Service

Robert Gilleskie, San Diego Gas & Electric

Power Electronics Implementation of Custom Power Applications

Neil Woodley, Westinghouse Electric Corporation

Next Meeting

The next meeting of the Custom Power Task Force will be at the IEEE PES Summer Power Meeting in Denver, Colorado, on Tuesday, July 30, 1996.

Attachments

Meeting Agenda, Custom Power Task Force Winter 1996 Meeting
Meeting Attendance, Custom Power Task Force Winter 1996 Meeting
Most recent membership list for the Custom Power Task Force

Submitted by:

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