

## VICE CHAIR'S REPORT – SPRING '07 – DALLAS, TEXAS

### 4.0 Vice Chair's Report – T. A. Prevost

The following items report on activities of PES Committees on which the Vice Chair serves as Committee representative.

#### 4.1 Technical Paper Sessions

**4.1.1 Technical Paper Session at the 2006 PSCE.** The IEEE PES Power Systems Conference and Exposition was held in Atlanta, Georgia on October 29-Nov 1, 2006. The venue for this conference was the Sheraton, Atlanta hotel.

Nine technical papers were presented during the “Transformers” session of the PSCE:

Papers at PSCE:

**PAPER-12.1: Time-Domain Analysis of Transformers by Using Modified Nodal Equations**

**PAPER-12.2: ANN Ensemble and Output Encoding Scheme for Improved Transformer Tap-changer Operation**

**PAPER-12.3: High frequency power transformer modeling for Power Line Communication applications**

**PAPER-12.4: Simulation of single-phase nonlinear and hysteretic transformer with internal faults**

**PAPER-12.5: Estimation of Transformer Inrush Current under Harmonic Source**

**PAPER-12.6: Furfural Concentration in Transformer Oil as an Indicator of Paper Ageing, Part 1: A Review**

**PAPER-12.7: A Transformer Thermal Model for use in an on-line Monitoring and Diagnostic System**

**PAPER-12.8: Researches viewing the loading level on electro insulating oil state from the electric power transformers**

**PAPER-12.9: An Automated On-line Monitoring and Fault Diagnosis System for Power Transformers**

**4.1.2 2007 PES General Meeting Tampa, Florida.** The 2007 IEEE Power Engineering Society 2007 General Meeting will be held 24 – 28 June 2007 at the Tampa Convention Center and the Marriott Waterside Hotel in Tampa, Florida, USA.

The theme of the meeting is *Powering the Future, Today.*

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The Transformers Committee is sponsoring two paper sessions with a total of thirteen technical papers. Due to the amount of papers presented at the meeting we have agreed to two sessions, however these will be longer sessions so that each presenter will have a thirty-minute allotment for presentation and questions. The paper sessions will be on Wednesday June 27, 2007 in the morning and afternoon.

### **Transformers I** Wednesday, June 27 8:00AM – 12:00 PM

- 1) Asymmetry During Load-Loss Measurement of Three-Phase Three-Limb Transformers
- 2) Analysis of Short Circuit Performance of Split-Winding Transformer Using Coupled Field-Circuit Approach
- 3) Characteristics of Inrush Current of Present Designs of Power Transformers
- 4) The Development of a Transformer Paralleling Guide for the IEEE Transformer Committee
- 5) Analysis of Sympathetic Inrush Phenomena in Transformers Using Coupled Field-Circuit Approach
- 6) Hybrid Transformer Model for Transient Simulation: Part I - Development and Parameters
- 7) Hybrid Transformer Model for Transient Simulation: Part II – Laboratory Measurements and Benchmarking

### **Transformers II** Wednesday, June 27 2:00 PM – 5:00 PM

- 1) Analysis for Oil Thermosyphon Circulation and Winding Temperature in ON Transformers
- 2) Increase of Static Electrification in Aged Transformers
- 3) Thermal Aging of Distribution Transformers According to IEEE and IEC Standards
- 4) Novel method for detection of transformer winding faults using Sweep Frequency Response Analysis
- 5) Improved Technique for Fault Detection Sensitivity in Transformer Maintenance Test
- 6) Optimal Time Selection for the Polarisation and Depolarisation Current Measurement for Power Transformer Insulation Diagnosis

## **4.2 Committee Organization and Procedures Manual**

The Transformers Committee O&P Manual revision is currently in process.

## **4.3 Power & Energy Magazine Submission**

The Transformers Committee needs to prepare an article for P&E magazine. The Vice-Chair will be looking for topics and volunteers to prepare this article. If you have any thoughts please contact the Vice-Chair.

Respectfully submitted,  
T. A. Prevost  
Vice Chairman