



## TRANSFORMERS COMMITTEE



August 25, 2007

Dear Committee Members and Guests:

You and your companion are invited to attend the Spring 2007 Meeting of the IEEE/PES Transformers Committee during October 14-18 and enjoy the land of 10,000 lakes and fabulous fall colors in Minneapolis, Minnesota. Your hosts, Xcel Energy and Sue and Paul McNelly, look forward to your visit.

Our meeting will take place at the Minneapolis Hilton, located in downtown Minneapolis and within easy walking distance from many fine restaurants, entertainment, theaters, shopping, and the Mississippi Riverwalk. The reduced group rate is US\$149 for single and double occupancy rooms. Guest rooms are reserved under the group name "IEEE Transformers" and can be reserved at 1-800-HILTONS or 612-376-1000. A link to the Hilton on-line reservation system is included in the Committee's website ("Next Meeting" page). The room-block cut-off date is Wednesday, September 19. After that date, remaining rooms will be released to the public. There are also a limited number of executive levels rooms available at a rate of US\$169.

The Minneapolis/St. Paul area is served by the Charles Lindberg International Airport (**airport code MSP**), which is only 30 minutes away from downtown Minneapolis and is a major hub for Northwest Airlines. There are several transportation options from the airport to the hotel. A SuperShuttle ride will cost US\$17 one-way, or the taxi fare one-way is ~US\$26-\$30. SuperShuttle tickets are available at the airport (advance reservation is not necessary). A third option is the Light Rail. Light rail goes directly from the airport to downtown Minneapolis (5<sup>th</sup> Street and Nicollet Mall), only 6 city blocks from the Hilton Hotel for a one-way ticket cost of US\$2. Hop on a city bus at the 5<sup>th</sup> Street and Nicollet Mall train stop and get to within one block of the hotel on 11<sup>th</sup> Street for just US\$0.50 more! For those who rent a car, the hotel offers self-parking in the adjacent garage at US\$12/day. Valet parking is also available.

The weather in mid October can vary greatly from day to day. We may experience unseasonably warm summer-like days or crisp cool fall days. A light jacket is a must and let's hope a warm coat will not be needed! Temperatures range from an average high of 58°F (15°C), to an average low of 39°F (4°C), but don't let that scare you away as we have had record highs of 90°F in October in recent years, so keep those fingers crossed! For days when temperatures may dip a little low for our Southern friends, there is always our great skyway system for getting around Minneapolis. A Skyway Map is available on the web site (bottom of "Next Meeting" page).

In addition to our meetings, we have also planned some great tours and outings to help you and your companions get the most out of your visit to the Twin Cities.

### ON-LINE REGISTRATION

We again have a full agenda planned for this meeting. Use the on-line registration system to register for all tours and events. The on-line registration system can be accessed at [www.transformerscommittee.org](http://www.transformerscommittee.org).

Register by **September 19** to receive the early-registration discount. The on-line registration system will be completely disabled on **Wednesday, October 10** to print name badges and finalize counts. Please note that the cost for walk-up registration at the hotel is substantially higher than registering on-line in advance.

## SPECIAL EVENTS

*Saturday, October 13* – We have reserved a block of tickets for the play “The Home Place” at the renowned Guthrie Theater. Transportation is on your own, but is a short 5-minute cab ride from the Hilton. We only have a small number of tickets so make your on-line meeting reservation by September 19.

The *Sunday Evening Reception* will be held in third-floor ballrooms of the Hilton. The reception will begin at 6:00 pm and is an excellent opportunity to visit with old friends and make some new friends. Entertainment will be provided by *The Back Alley Boys*, so bring your dancing shoes!.

*Tuesday, October 16* - The speaker for the Tuesday Luncheon will be Wanda Reder, IEEE Power Engineering Society President-Elect and Vice President of Power Systems Services for S&C Electric Company. She will be discussing the Society goals, long-range plan, and introducing the Power Engineering Society Board. She will also be looking for feedback from the Committee especially in the areas of membership, employer support, meetings, and approaches for more efficient standards creation.

On *Tuesday evening*, we have again reserved a block of tickets for the play “The Home Place” at the renowned Guthrie Theater. Transportation is on your own, but is within a short 5-minute cab ride from the Hilton.

*Wednesday, October 17* - Our Wednesday Evening Dinner Social will give you and your companion the opportunity to go way back in time and experience life in ancient Pompeii at a special Minnesota Science Museum exhibit, “A Day in Pompeii.” Enjoy a sit-down dinner overlooking the mighty Mississippi after you have had time to experience the exhibits.

## COMPANION TOURS

*Monday, October 15* - On Monday, your spouse/companion will get an opportunity to enjoy the Historic City of St. Paul. Start the morning with a fascinating and funny look at the gangland depression and prohibition era St. Paul, followed by lunch at the historic Forepaugh's Victorian mansion, then a tour of historic St. Paul's Summit Avenue and the Alexander Ramsey house.

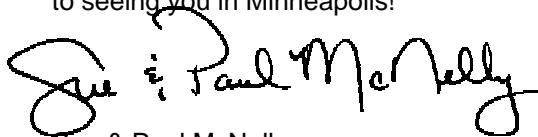
*Tuesday, October 16* - On Tuesday you will see some of the sites Minneapolis has to offer. Minneapolis Sculpture Garden, follow Minnehaha Creek to the legendary Minnehaha Falls, visit the Mississippi River at St. Anthony Falls, the birthplace of Minneapolis, and the Stone Arch Bridge. **Afterwards enjoy** a delicious lunch at the Pracna on Main Restaurant and a tour the Mill City Museum.

## TECHNICAL TOURS

Sunday, October 14 – Jordan Transformer Repair Facility Tour (by invitation only). Contact John Leemhuis at 952-492-2720 or [johnl@jordantransformer.com](mailto:johnl@jordantransformer.com) for more information."

My husband, Paul, and I welcome you to Minneapolis and hope your visit will be enjoyable and memorable. If you require further information or assistance, please phone me at 612-330-6904, or email me at [sjmcnelly@ieee.org](mailto:sjmcnelly@ieee.org).

If you listen closely during your visit, you may even hear the elusive call of the loon. We look forward to seeing you in Minneapolis!



Sue & Paul McNelly  
Hosts, Fall 2007 Meeting

Use this form only if you do not have access to the Internet, or need to pay by paper check or money order.  
Pre-register on-line for the meeting and/or purchase meeting minutes (in paper format) using a credit card at:  
[www.transformerscommittee.org](http://www.transformerscommittee.org)

**IEEE/PES TRANSFORMERS COMMITTEE**  
**FALL 2007 MEETING; OCTOBER 14-18, 2007**  
**Minneapolis, Minnesota USA**

Attendee's Name \_\_\_\_\_  
Company / Institution \_\_\_\_\_  
Street Address \_\_\_\_\_  
City \_\_\_\_\_ State / Prov. \_\_\_\_\_ Postal Code \_\_\_\_\_ Country \_\_\_\_\_  
Telephone \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_  
PES Member? ☐ Yes ☐ No IEEE Standards Association Member? ☐ Yes ☐ No IEEE Membership #: \_\_\_\_\_  
Will a companion accompany you? ☐ Yes ☐ No Full name of companion (for nametag) \_\_\_\_\_  
Indicate if vegetarian meal(s) are required for: Attendee: ☐ Yes ☐ No Companion: ☐ Yes ☐ No  
Other special requirements (special diets, wheelchair, etc.): \_\_\_\_\_

**Attendee Registration Fee Includes:** Meeting Attendance, Sunday Evening Reception, breaks, and 4 breakfasts (M, T, W, Th)

**Companion Registration Fee Includes:** Sunday Evening Reception and 4 breakfasts (M, T, W, Th)

-- Refund provided **ONLY** if request is received by **October 10** (by postal mail or fax, or confirmed email to the contact below) --

-- There is a US\$25.00 service charge on a refund of the entire registration (US\$10 for a partial refund) --

**NOTE: Complete meeting registration (with fees) is necessary to attend ANY event! (including companion tours)**

	On or Before Sept. 19	After Sept. 19, on or before Oct. 10	At the Meeting	Total
<b>Meeting Registration Fees (all fees in US\$ funds)</b>				
Attendee - IEEE Member (will be verified with IEEE)	\$175	\$225	\$325	_____
Attendee - non-member	\$200	\$250	\$350	_____
Attendee - IEEE Life or Committee Emeritus (will be verified)	\$50	\$100	\$200	_____
Spouse or Companion, including children age 10 and over	\$75	\$100	\$200	_____

**\*\* Note:** Spouses/companions & children must be registered for the meeting (with an above fee) to attend any tour or social event. \*\*

**Sunday Evening Reception** (cost included in registration fee) Attendee: ☐ Yes ☐ No, Companion: ☐ Yes ☐ No **-0-**

**Monday Lunch:** Standards Develop Process Review Mtg (all SC-WG-TF Chairs encouraged to attend) # \_\_\_\_ @ \$20 \_\_\_\_\_

**Tuesday Lunch:** Ms. Wanda Reder, PES President-Elect # \_\_\_\_ @ \$30 \_\_\_\_\_

Indicate selection for Tuesday Luncheon: Beef \_\_\_\_, Chicken \_\_\_\_, Vegetarian \_\_\_\_

**Wednesday Evening Event:** Dinner Social at the Science Museum of Minnesota # \_\_\_\_ @ \$65 \_\_\_\_\_

Indicate selection for Dinner Social: Turkey \_\_\_\_, Walleye (a popular local fish) \_\_\_\_, Vegetarian \_\_\_\_

**Spouse/Companion Tours:** Monday - Historic St. Paul Tour, includes lunch # \_\_\_\_ @ \$60 \_\_\_\_\_

Tuesday - Minneapolis Area Tour, includes lunch # \_\_\_\_ @ \$60 \_\_\_\_\_

**Guthrie Theater Presentation:** Saturday Evening (limited attendance, register by Sept 19) # \_\_\_\_ @ \$45 \_\_\_\_\_

Tuesday Evening (limited attendance, register by Sept 19) # \_\_\_\_ @ \$35 \_\_\_\_\_

**Fall 2007 Meeting Minutes, paper format\*\*** (purchased with or without meeting registration) # \_\_\_\_ @ \$25 \_\_\_\_\_

\*\* The primary source for Meeting Minutes is the Committee's web-site. Printed minutes (in paper format) can be purchased and will be mailed to the above address at a later date.

**TOTAL REMITTED -- US\$** \_\_\_\_\_  
**All funds in US dollars**

**METHODS OF PAYMENT:** (1) Pre-register on-line (preferred). (2) Mail form with check or money order to:

IEEE/PES Transformers Committee, c/o Greg Anderson; 13110 Birch Drive, Suite 148; Omaha, Nebraska 68164 USA

(3) Fax or email completed form with credit card info to: 816/222-0828 (fax), or transformers@ieee.org

US Tax ID No. 13-1656633, Canadian Business No. 12563 4188, Euro Tax Registration No. EU826000081

**Check or money order - Payable to: "IEEE/PES Transformers Committee"**

- Checks not issued by a US Bank must add US\$25.00 for processing fee.

**Credit Card:** ☐ Visa ☐ MasterCard ☐ American Express ☐ Diners Club

*Mailed or faxed registrations  
without proper payment will not be  
accepted*

Card Number \_\_\_\_\_ Expiration Date \_\_\_\_\_ Name as it appears on card \_\_\_\_\_ Signature (Important) \_\_\_\_\_

# IEEE/PES TRANSFORMERS COMMITTEE

[www.transformerscommittee.org](http://www.transformerscommittee.org)

Fall 2007 Meeting; October 14-18, 2007

Hosted by Susan McNelly and Xcel Energy

Hilton Minneapolis Hotel; Minneapolis, Minnesota USA

**NOTES:** See Page 5 for a key to abbreviations. A vertical line in the left margin indicates a noteworthy revision since last revision.

<u>DATE/TIME</u>	<u>ACTIVITY</u>	<u>SUB-COM</u>	<u>ACTIVITY CHAIR</u>	<u>ROOM CAP/ARR/AV</u>	<u>MEETING ROOM (Floor)</u>
<b>Saturday, October 13 (no meeting registration this day)</b>					
7:30 pm show time	<u>Bonus Activity #1:</u> Guthrie Theater Presentation, "The Home Place". We have reserved a limited number of tickets for our group. Register on-line by September 19. No transportation provided (suggest take city taxi). Note: There is a second opportunity for this theater presentation on Tuesday evening.				
<b>Sunday, October 14</b>					
8:00 am - 1:30 pm	<u>Sunday Technical Tour:</u> "Jordan Transformer Repair Facility". By invitation only. -- Buses depart the Hilton at 8:00 am and return by 1:30 pm. Includes lunch. Eat breakfast beforehand. -- Contact John Leemhuis at (952) 492-2720 or <a href="mailto:johnl@jordantransformer.com">johnl@jordantransformer.com</a> for more information.				
1:00 pm - <u>5:30 pm</u>	Meeting Registration, window in Red Wing Room (only open until 5:30 pm)				3rd Floor Foyer
2:00 pm - 5:30 pm	Administrative SC -- Closed meeting, by invitation only	Admin.	D. Fallon	25 US (w/snack buffet)	Duluth (3rd Floor)
2:00 pm - 5:30 pm	NEMA Transformers -- Closed meeting, by invitation only	++	C. Drexler	15 US (w/beverages)	Rochester (3rd)
6:00 pm - 8:00 pm	Welcome Reception -- All Members, Guests & Companions are welcome!			350 Recept.	Ballroom ABC (3rd Floor)
<b>Monday, October 15 -- Monday Breaks Sponsored by AREVA T&amp;D ***</b>					
7:00 am - 5:00 pm	Meeting Registration, window in Red Wing Room				3rd Floor Foyer
7:00 am - 6:00 pm	Internet Cafe' (3rd Floor, room near registration area)			12 SQ	Directors Row #2
<u>7:00 am</u> - 7:50 am	<u>Newcomers Orientation</u> Breakfast Mtg ( <u>arrive early!</u> ) -- Newcomers & Guests are encouraged to attend!		T. Prevost	35 CL	Rochester (3rd)
7:00 am - 7:45 am	Distribution SC Coordination Meeting (closed mtg)		K. Hanus	14 CONF	Directors Row #3
7:00 am - 8:00 am	Breakfast - Attendees (no companions please)			250 RT (8/tbl)	Ballroom D (3rd)
8:00 am - 9:00 pm	Breakfast - Companions (no meeting attendees please)			60 RT (8/tbl)	Carvers (Lobby)
9:15 am - 4:00 pm	<u>Companion Tour:</u> "Historic St. Paul Tour." Includes lunch. -- Advance registration required. The bus departs the Hilton Hotel at 9:15 am and returns by 4:00 pm.				
	<del>WG Elect. Test Data Report. C57.12.37</del>	Dist	WG will not meet this time.		
8:00 am - 10:45 am	IEC TC-14 Technical Advisory Group (all interested individuals welcome)	++	P. Hopkinson	20 CL	Nicollet (2nd Floor)
8:00 am - 9:15 am	WG 3-ph UG Distr. Transf. C57.12.24	UTNP	G. Termini	40 CL	Ramsey (2nd)
8:00 am - 9:15 am	TF Arc Furnace Transformers C57.17	Power	D. Corsi	60 CL	Duluth (3rd)
8:00 am - 9:15 am	TF Dry-Type Reactors	Dry	R. Dudley	80 CL	Hennepin/Carver (2nd Floor)
8:00 am - 9:15 am	Short Circuit Tests Guide C57.133 and revision to C57.12.90, Section 12	PCS	M. Fortin	80 CL	Marquette/Lasalle (2nd Floor)
8:00 am - 9:15 am	TF Electrical Partial Discharge Measurements Guide C57.113	DiTests	E. Lemke	100 CL S3	Ballroom E (3rd)
8:00 am - 9:15 am	WG Transformer Monitoring C57.143	Power	D. Chu/A. Lux	175 CL S3	Ballroom FG (3rd)
9:15 am - 9:30 am	<i>Break (beverages only)</i>			3rd Floor Foyer	

\*\*\* Contact Joe Watson ([joe\\_watson@ieee.org](mailto:joe_watson@ieee.org)) if you are interested in sponsoring coffee-breaks at a future meeting.

<u>DATE/TIME</u>	<u>ACTIVITY</u>	<u>SUB-COM</u>	<u>ACTIVITY CHAIR</u>	<u>ROOM CAP/ARR/AV</u>	<u>MEETING ROOM</u>
<b>Monday, October 15 (continued)</b>					
9:30 am - 10:45 am	<del>WG Acoustic PD Measure PC57.127</del> WG Sealed Dry-type Power Transformers C57.12.52 <b>New!</b>	DiTests Dry	Document in final stages. No further WG meetings. S. Kennedy	40 CL	Ramsey (2nd)
9:30 am - 10:45 am	WG Liquid-immersed Secondary Network Transformers C57.12.40	UTNP	B. Klaponiski	60 CL	Duluth (3rd)
9:30 am - 10:45 am	WG Revision of C57.12.10	Power	J. Arteaga	80 CL	Hennepin/Carver
9:30 am - 10:45 am	WG Overhead Distribution Transformers C57.12.20	Dist	A. Wilks/ T. Cooper	80 CL	Marquette/Lasalle (2nd)
9:30 am - 10:45 am	WG PCS Rev. to Test Code C57.12.90	PCS	M. Perkins	100 CL S3	Ballroom E (3rd)
9:30 am - 10:45 am	(TBD)			175 CL S3	Ballroom FG (3rd)
10:45 am - 11:00 am	<i>Break (beverages only)</i>			3rd Floor Foyer	
11:00 am - 12:15 pm	WG Dry-Type Gen. Require. C57.12.01	Dry	J. Sullivan	40 CL	Ramsey (2nd)
11:00 am - 12:15 pm	WG Shunt Reactors C57.21	PCS	R. Dudley	60 CL	Duluth (3rd)
11:00 am - 12:15 pm	WG Thermal Evaluation of Power and Distribution Transformers C57.100	IL	R. Wicks	80 CL	Hennepin/Carver (2nd)
11:00 am - 12:15 pm	WG 1-ph Padmount Distribution Transformers C57.12.25	Dist	A. Ghafourian/ I. Ares	80 CL	Marquette/Lasalle (2nd)
11:00 am - 12:15 pm	WG Revision to Low Frequency Tests	DiTests	B. Poulin	100 CL S3	Ballroom E (3rd)
11:00 am - 12:15 pm	WG Standard for Control Cabinets	Power	J. Watson	175 CL S3	Ballroom FG (3rd)
12:15 pm - 1:30 pm	<u>Lunch Meeting</u> : Stds Development Process Review -- All activity chairs are encouraged to attend. -- Advance reservation required (\$20 for box lunch). -- No paper tickets. Admission verified at the door.		B. Chiu (Stds SC)	100 RT (8/tbl)	Ballroom D (3rd)
1:45 pm - 3:00 pm	WG Thermal Evaluation C57.12.56 and C57.12.60	Dry	R. Provost/ R. Wicks	40 CL	Ramsey (2nd)
1:45 pm - 3:00 pm	<b>SC HVDC Converter Transformers and Smoothing Reactors</b>	HVDC	R. Dudley	60 CL	Duluth (3rd)
1:45 pm - 3:00 pm	WG Frequency Response Analysis (FRA) Guide PC57.149	PCS	C. Sweetser	80 CL	Hennepin/Carver (2nd)
1:45 pm - 3:00 pm	WG 3-ph Padmount Distribution Transformers C57.12.34	Dist	R. Stahara/ S. Shull	80 CL	Marquette/Lasalle (2nd)
1:45 pm - 3:00 pm	(TBD)			100 CL S3	Ballroom E (3rd)
1:45 pm - 3:00 pm	WG Tap Changer Performance C57.131	Power	W. Henning	175 CL S3	Ballroom FG (3rd)
3:00 pm - 3:15 pm	<i>Break (beverages and treats)</i>			3rd Floor Foyer	
3:15 pm - 4:30 pm	<del>TF Core Overexcitation Requirements</del> Joint WG Optical Instrument Transf. C57.13/PSIM P1601	PCS IT/PSIM	Work nearly complete. No TF meeting necessary. Rahmatian/ Gilleland	40 CL	Ramsey (2nd)
3:15 pm - 4:30 pm	WG 1-ph Submersible Distribution Transformers C57.12.23	UTNP	A. Traut/ B. Basu	60 CL	Duluth (3rd)
3:15 pm - 4:30 pm	TF IEEE-IEC Cross Reference	Stds	J. Sim	80 CL	Hennepin/Carver
3:15 pm - 4:30 pm	WG Dry-Type Test Code C57.12.91	Dry	D. Foster	80 CL	Marquette/Lasalle
3:15 pm - 4:30 pm	WG PCS Revisions to C57.12.00	PCS	S. Snyder	100 CL S3	Ballroom E (3rd)
3:15 pm - 4:30 pm	WG Impulse Guides C57.98 & C57.138	DiTests	A. Molden	175 CL S3	Ballroom FG (3rd)
4:30 pm - 4:45 pm	<i>Break (beverages only)</i>			3rd Floor Foyer	
4:45 pm - 6:00 pm	<u>Presentation #1</u> : "Transformer Switching; A Current Update, Part 1; Background and New Findings", by Degeneff, Hopkinson, Girgis and others. Sponsored by PCS. Part 2 presented Tuesday at 4:45 pm. **			250 CL S3 (add 75 TH seats in rear)	Ballroom FG (3rd)

\*\* Contact N. Kent Haggerty (n.kent.haggerty@ieee.org) if you are interested in making a technical presentation at a future meeting.

<u>DATE/TIME</u>	<u>ACTIVITY</u>	<u>SUB-COM</u>	<u>ACTIVITY CHAIR</u>	<u>ROOM CAP/ARR/AV</u>	<u>MEETING ROOM</u>
<b>Tuesday, October 16 -- Tuesday Breaks Sponsored by TBEA Transformers ***</b>					
7:00 am - 12:00 pm	Meeting Registration, window in Red Wing Room (open until noon only)				3rd Floor Foyer
7:00 am - 6:00 pm	Internet Cafe'			12 SQ	Directors Row #2
7:00 am - 8:00 am	NEMA ST-1/ST-20 Revision (breakfast meeting)			14 CONF	Rochester (3rd)
7:00 am - 8:00 am	Breakfast - Attendees (no companions please)			275 RT (8/tbl)	Ballroom D (3rd)
8:00 am - 9:00 pm	Breakfast - Companions (no meeting attendees please)			60 RT (8/tbl)	Carvers (Lobby)
9:15 am - 4:30 pm	<u>Companion Tour</u> : "Minneapolis Area Tour." Includes lunch. -- Advance registration required. The bus departs the Hilton Hotel at 9:15 am and returns by 4:30 pm.				
8:00 am - 9:15 am	WG Test Requirements for HV Instrument Transformers C57.13.5	IT	R. McTaggart/ P. Riffon	40 CL	Ramsey (2nd)
8:00 am - 9:15 am	(TBD)			60 CL	Duluth (3rd)
8:00 am - 9:15 am	WG Rev. Field Test Guide IEEE 62	Stds	J. Verner	80 CL	Hennepin/Carver
8:00 am - 9:15 am	WG Enclosure Integrity C57.12.28, C57.12.29, C57.12.31, C57.12.32	Dist	R. Olen/ D. Mulkey	80 CL	Marquette/Lasalle
8:00 am - 9:15 am	WG Natural Ester-based Fluids C57.147	IF	P. McShane	100 CL S3	Ballroom E (3rd)
8:00 am - 9:15 am	WG Switching Transients Induced by Transf./Breaker Interaction PC57.142	PCS	R. Degeneff	175 CL S3	Ballroom FG (3rd)
9:15 am - 9:30 am	<i>Break (beverages only)</i>				3rd Floor Foyer
	<del>TF Transformers for Wind Farms</del>	<del>Power</del>	Work is complete.	TF will not meet again.	
9:30 am - 10:45 am	WG Terminal Markings C57.12.70	Stds	S. Shull	40 CL	Ramsey (2nd)
9:30 am - 10:45 am	WG Neutral Ground. Devices PC57.32	PCS	S. Schappell	60 CL	Duluth (3rd)
9:30 am - 10:45 am	TF Functional Life Tests, De-energized Tap Changers (DETC)	Power	P. Hopkinson	80 CL	Hennepin/Carver (2nd)
9:30 am - 10:45 am	WG Revision to Loading Guide C57.91	IL	T. Raymond	80 CL	Marquette/Lasalle
9:30 am - 10:45 am	TF GSU Bushing Standardization	Bush	L. Recksiedler	100 CL S3	Ballroom E (3rd)
9:30 am - 10:45 am	(TBD)			175 CL S3	Ballroom FG (3rd)
10:45 am - 11:00 am	<i>Break (beverages only)</i>				3rd Floor Foyer
	<del>WG Dist. Substation Transf. C57.12.36</del>	<del>Dist</del>	Document successfully balloted. WG will not meet.		
11:00 am - 12:15 pm	WG Loss Tolerance and Measurement	PCS	E. teNyenhuis	40 CL	Ramsey (2nd)
11:00 am - 12:15 pm	WG Phase-shift Transf. Guide C57.135	Power	J. Sim	60 CL	Duluth (3rd)
11:00 am - 12:15 pm	TF Transf. Tank Rupture & Mitigation	Power	P. Zhao	80 CL	Hennepin/Carver
11:00 am - 12:15 pm	WG Temperature Rise Test Procedures in Section 11 of C57.12.90	IL	P. Powell	80 CL	Marquette/Lasalle (2nd)
11:00 am - 12:15 pm	WG Guide for DGA in LTCs C57.139	IF	F. Jakob	100 CL S3	Ballroom E (3rd)
11:00 am - 12:15 pm	TF Transformer Efficiency and Loss Evaluation (DOE Activity) <b>New!</b>	Dist	P. Hopkinson	175 CL S3	Ballroom FG (3rd)
12:15 pm - 1:30 pm	<u>Speaker Luncheon</u> by Ms. Wanda Reder, PES President-Elect -- Advance registration is necessary. -- Paper tickets are not provided. Admission verified at the door.			160 CL (8/tbl) with elevated table for 5	Ballroom D (3rd)
	<del>WG Non-sinusoidal Loads C57.110</del>	<del>PCS</del>	Document in balloting process. WG will not meet.		
1:45 pm - 3:00 pm	(TBD)			40 CL	Ramsey (2nd)
1:45 pm - 3:00 pm	WG Revision to IEEE 638	Power	C. Swinderman	60 CL	Duluth (3rd)
1:45 pm - 3:00 pm	WG Dielectric Test Tables, Liquid-filled	DiTests	P. Hopkinson	80 CL	Hennepin/Carver
1:45 pm - 3:00 pm	WG Voltage Step Regulators C57.15	Dist	Colopy/Kennedy	80 CL	Marquette/Lasalle
1:45 pm - 3:00 pm	WG Revision to Gas Guide C57.104	IF	R. Ladroga	100 CL S3	Ballroom E (3rd)
1:45 pm - 3:00 pm	(TBD)			175 CL S3	Ballroom FG (3rd)
3:00 pm - 3:15 pm	<i>Break (beverages and treats)</i>				3rd Floor Foyer

\*\*\* Contact Joe Watson (joe\_watson@ieee.org) if you are interested in sponsoring coffee-breaks at a future meeting.

<u>DATE/TIME</u>	<u>ACTIVITY</u>	<u>SUB-COM</u>	<u>ACTIVITY CHAIR</u>	<u>ROOM CAP/ARR/AV</u>	<u>MEETING ROOM</u>
<b>Tuesday, October 16 (continued)</b>					
3:15 pm - 4:30 pm	WG Sound Level Measurement Guide	ASV	J. Puri	40 CL	Ramsey (2nd)
3:15 pm - 4:30 pm	WG Semiconductor Rectifier Transformers C57.18.10	PCS	S. Kennedy	60 CL	Duluth (3rd)
3:15 pm - 4:30 pm	WG Bushing Applicat. Guide C57.19.100	Bush	T. Spitzer	80 CL	Hennepin/Carver (2nd)
3:15 pm - 4:30 pm	WG for Bar Coding Distribution Transformers C57.12.35	Dist	L. Matthews/ G. Termini	80 CL	Marquette/Lasalle (2nd)
3:15 pm - 4:30 pm	WG Revision to Impulse Tests	DiTests	P. Riffon/ P. Heinzig	100 CL S3	Ballroom E (3rd)
3:15 pm - 4:30 pm	WG Transportation Issues Guide	Power	G. Anderson	175 CL S3	Ballroom FG (3rd)
4:30 pm - 4:45 pm	<i>Break (beverages only)</i>			3rd Floor Foyer	
4:45 pm - 6:00 pm	<u>Presentation #2</u> : "Transformer Switching; A Current Update, Part 2; Mitigation Techniques", by Degeneff, Hopkinson, Girgis and others. Sponsored by PCS. Part 1 presented Monday at 4:45 pm. **			250 CL S3 (add 75 TH seats in rear)	Ballroom FG (3rd)
7:30 pm show time	<u>Bonus Activity #2</u> : Guthrie Theater Presentation, "The Home Place". We have reserved a limited number of tickets for our group. Register on-line by September 19. No transportation provided (suggest take city taxi). Note: There is a similar event on Saturday evening.				

**Wednesday, October 17 -- Wednesday Breaks Sponsored by Baron USA, Inc. \*\*\***

No Meeting Registration, No Companion Tours					
7:00 am - 6:00 pm	Internet Cafe'			12 SQ	Directors Row #2 (3rd)
7:00 am - 8:00 am	Breakfast - Attendees (no companions please)			250 RT (8/tbl)	Ballroom D (3rd)
8:00 am - 9:30 am	Breakfast - Companions (no meeting attendees please)			60 RT (8/tbl)	Carvers (Lobby)
7:00 am - 7:45 am	<b>SC Meetings Planning</b> Get breakfast in Ballroom D and take to Duluth Room. Arrive early!	Mtgs	G. Anderson	30 CL	Duluth (3rd)
8:00 am - 9:15 am	EL&P Delegation (Users only meeting)	++	K. Hanus	25 CL	Directors Row #3 (3rd Floor)
8:00 am - 9:15 am	<b>SC Instrument Transformer</b>	IT	J. Smith	60 CL	Duluth (3rd)
8:00 am - 9:15 am	<b>SC Audible Sound &amp; Vibration</b>	ASV	J. Puri	100 CL S3	Ballroom E (3rd)
8:00 am - 9:15 am	<b>SC Insulation Life</b>	IL	D. Platts	200 CL S3	Ballroom FG (3rd)
9:15 am - 9:30 am	<i>Break (beverages only)</i>			3rd Floor Foyer	
9:30 am - 10:45 am	(TBD)			60 CL	Duluth (3rd)
9:30 am - 10:45 am	<b>SC UG Transf. &amp; Network Protectors</b>	UTNP	C. Niemann	100 CL S3	Ballroom E (3rd)
9:30 am - 10:45 am	<b>SC Dielectric Tests</b>	DiTests	L. Wagenaar	200 CL S3	Ballroom FG (3rd)
10:45 am - 11:00 am	<i>Break (beverages only)</i>			3rd Floor Foyer	
11:00 am - 12:15 pm	(TBD)			60 CL	Duluth (3rd)
11:00 am - 12:15 pm	<b>SC Insulating Fluids</b>	IF	R. Ladroga	100 CL S3	Ballroom E (3rd)
11:00 am - 12:15 pm	<b>SC Performance Characteristics</b>	PCS	R. Girgis	200 CL S3	Ballroom FG (3rd)
12:15 pm - 1:30 pm	Lunch (on your own)				
1:30 pm - 2:45 pm	(TBD)			60 CL	Duluth (3rd)
1:30 pm - 2:45 pm	<b>SC Dry Type</b>	Dry	C. Johnson	100 CL S3	Ballroom E (3rd)
1:30 pm - 2:45 pm	<b>SC Power Transformers</b>	Power	T. Lundquist	200 CL S3	Ballroom FG (3rd)
2:45 pm - 3:00 pm	<i>Break (beverages and treats)</i>			3rd Floor Foyer	

\*\* Contact N. Kent Haggerty (n.kent.haggerty@ieee.org) if you are interested in making a technical presentation at a future meeting.

\*\*\* Contact Joe Watson (joe\_watson@ieee.org) if you are interested in sponsoring coffee-breaks at a future meeting.

## KEY

Note: A PC projector will be furnished in each meeting room. Arrive early to ensure that equipment operates/syncs correctly. Overhead projectors are available in the meeting registration area.

> -- activity continued into another session / from another session

++ -- not a Transformers Committee activity      TBD = "To Be Determined"

FC = flip chart; S1 = sound (see note)

S2 = stand mic in front only; S3 = one stand mic in front & stand mic(s) at mid-room

CL -- classroom seating (w/head table for 2-3)

TH -- theater seating (with head table for 2-3)

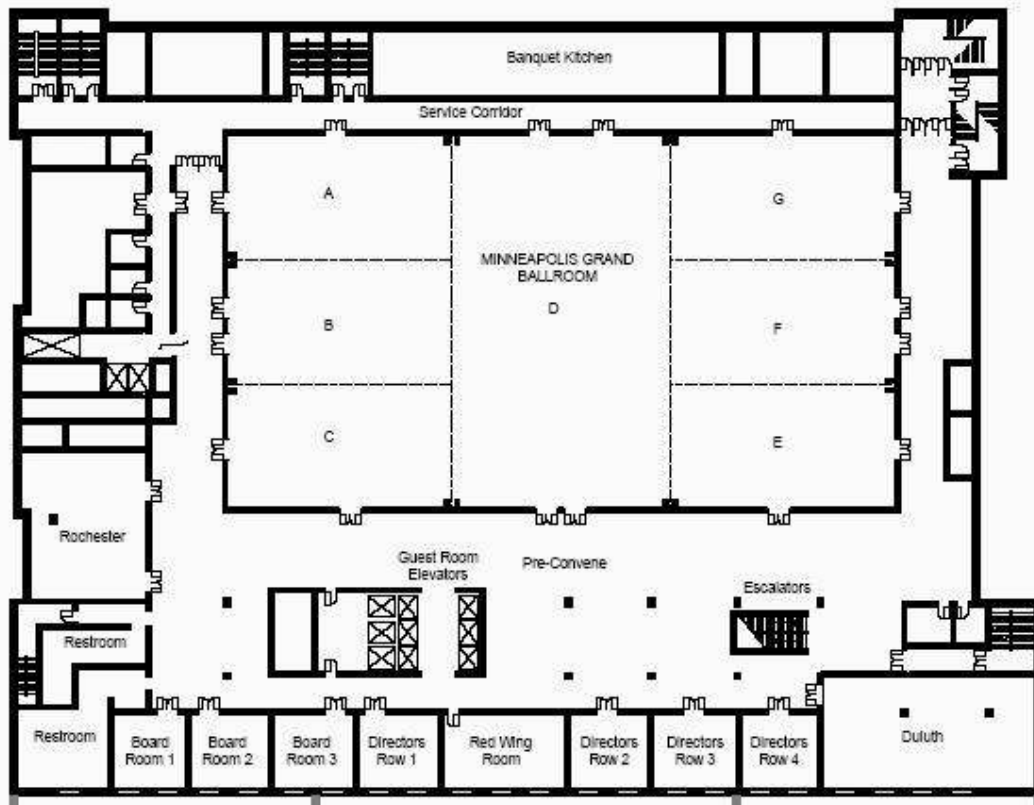
RT -- multiple roundtables (8-9/table)

US -- U-shape table

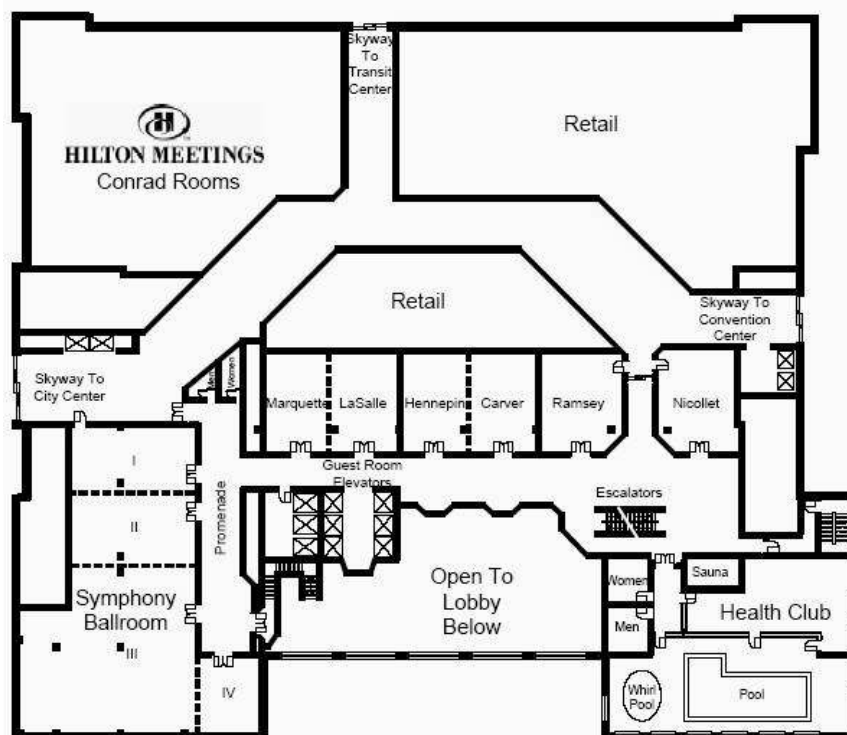
<u>DATE/TIME</u>	<u>ACTIVITY</u>	<u>SUB-COM</u>	<u>ACTIVITY CHAIR</u>	<u>ROOM CAP/ARR/AV</u>	<u>MEETING ROOM</u>
<b>Wednesday, October 17 (continued)</b>					
3:00 pm - 4:15 pm	(TBD)			60 CL	Duluth (3rd)
3:00 pm - 4:15 pm	<b>SC Bushings</b>	Bush	F. Elliott	100 CL S3	Ballroom E (3rd)
3:00 pm - 4:15 pm	<b>SC Distribution Transformers</b>	Dist	K. Hanus	200 CL S3	Ballroom FG (3rd)
4:15 pm - 4:30 pm	<i>Break (beverages only)</i>			3rd Floor Foyer	
4:30 pm - 5:30 pm	<b>SC Transformer Standards</b>	Stds	B. Chiu	100 CL S3	Ballroom E (3rd)
6:00 pm - 10:00 pm	<u>Dinner Social</u> : Dinner at the "Science Museum of Minnesota". Advance registration is necessary. -- Buses begin boarding at 5:45 pm. The last bus leaves at 6:00 pm. All buses return before 10:00 pm. -- Paper tickets will not be provided. Admission will be verified with a registration list as you board the bus.				
<b>Thursday, October 18</b>					
No Meeting Registration, No Technical Tours, No Companion Tours, No Internet Cafe', No EPRI Meeting					
7:00 am - 8:00 am	Breakfast - Attendees (no companions please)			225 RT (8/tbl)	Ballroom D (3rd)
8:00 am - <u>9:30 am</u>	Breakfast - Companions (no meeting attendees please)			60 RT(8/tbl)	Carvers (Lobby)
8:00 am - 9:45 am >	General Session, Transformers Committee -- <u>All attendees</u> are encouraged to attend. -- See separate document for meeting agenda.		D. Fallon	250 CL S1 2 per 6' and <u>elevat.</u> table for 4	Ballroom ABC (3rd)
9:45 am - 10:00 am	<i>Break (beverages only)</i>			3rd Floor Foyer	
> 10:00 am - 11:30 am	General Session, Transformers Committee		D. Fallon	250 CL S1	Ballroom ABC (3rd)
1:00 pm - 5:00 pm	(TBD)			12 US	Ramsey (2nd)
<b>Friday, October 19</b>					
No Transformer Committee Meetings, No Internet Cafe', No EPRI Meeting					



## MEETING FACILITIES - THIRD FLOOR



## MEETING FACILITIES - SECOND FLOOR



# IEEE/PES TRANSFORMERS COMMITTEE

## General Session - Fall 2007 Meeting Thursday, October 18, 2007

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Chair: Donald J. Fallon

Vice Chair: Thomas A. Prevost

Secretary: J. Edward Smith

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- |       |                                               |                            |
|-------|-----------------------------------------------|----------------------------|
| 1.    | Chair's Remarks and Announcements             | Donald J. Fallon           |
| 2.    | Approval of Minutes from Fall 2006 Meeting    | Donald J. Fallon           |
| 3.    | Administrative Subcommittee                   | Donald J. Fallon           |
| 4.    | Vice Chair's Report                           | Thomas A. Prevost          |
| 5.    | Transformer Standards                         | Bill Chiu                  |
| 6.    | Recognition and Awards                        | Kenneth S. Hanus           |
| 7.    | New Business                                  | Donald J. Fallon           |
| 8.    | Report of Technical Subcommittees             |                            |
| 8.1.  | HVDC Converter Transformers & Reactors        | Richard F. Dudley          |
| 8.2.  | Instrument Transformers                       | James E. (Jim) Smith       |
| 8.3.  | Insulating Fluids                             | Richard K. Ladroga         |
| 8.4.  | Insulation Life                               | Donald W. Platts           |
| 8.5.  | Performance Characteristics                   | Ramsis S. Girgis           |
| 8.6.  | Power Transformers                            | Thomas G. Lundquist        |
| 8.7.  | Underground Transformers & Network Protectors | Carl G. Niemann            |
| 8.8.  | Audible Sound and Vibration                   | Jeewan L. Puri             |
| 8.9.  | Bushings                                      | Fred E. Elliott            |
| 8.10. | Dry Type Transformers                         | Charles (Chuck) W. Johnson |
| 8.11. | Distribution Transformers                     | Kenneth S. Hanus           |
| 8.12. | Dielectric Tests                              | Loren B. Wagenaar          |
| 9.    | Editor's Report                               | John C. Crouse             |
| 10.   | Meetings Planning Subcommittee                | Gregory W. Anderson        |
| 11.   | Reports of Liaison Representatives            |                            |
| 11.1. | Standard Coordinating Committee No. 4         | Paulette Payne Powell      |
| 11.2. | IEC TC-14 Technical Advisor to USNC           | Philip J. Hopkinson        |
| 11.3. | CIGRE                                         | Jean-Christophe Riboud     |
| 12.   | Old Business                                  | Donald J. Fallon           |
| 13.   | New Business (further discussion as needed)   | Donald J. Fallon           |

# Companion's Tour

## Historic St. Paul

Monday, October 15, 2007  
9:15 AM – 4:00 PM

The tour will start with a fascinating and funny look at the gangland depression and prohibition era St. Paul. A surprising overview of the rogue bank-robbing gangs that preyed upon the citizens of Minneapolis only to return to the safe haven of St. Paul. There was serious well-established organized crime in Minneapolis, too.

Some of the more notable personalities involved are nationally known infamous criminals; names that by whatever turn of fortune became household words in an earlier period of our history. Names that include John Dillinger, Baby Face Nelson, Machine Gun Kelly and Ma Barker and her sons.



A delicious lunch will be enjoyed at the historic Forepaugh's, set in a restored Victorian mansion.

Following lunch you will experience the rich and elegant history of St. Paul. First, visit the Alexander Ramsey House, where Minnesota's first territorial governor lived with his family. You will be greeted by an authentically costumed guide as you take a tour of the French Second Empire style mansion that Ramsey built in 1872. Carefully restored and furnished with original family pieces, the Ramsey house now appears as it did more than a century ago. Walk through its 15 rooms containing black walnut woodwork, marble fireplaces, crystal chandeliers, and a rich collection of china, silver and personal possessions. This home remained in the family until 1964 when it was willed to the Minnesota Historical Society.

Next, travel along mansion-lined Summit Avenue, past historic landmarks including the Governor's Residence, and the Cathedral of St. Paul at arrive at the "granddaddy" of all the Victorian residences, the James J. Hill House. Designed by a prestigious Boston firm, it originally included 22 fireplaces and 13 bathrooms to accommodate the Hill family and their 10 children. Added to this was a massive reception room, full servants quarters and an adjoining dining room able to seat 40. Following Mr. Hill's death the mansion fell into the hands of the Archdiocese of St. Paul, becoming a National Historic Landmark in 1961. It is now owned and maintained by the Minnesota Historical Society.



# Companion's Tour

## Minneapolis Area Tour

**Tuesday, October 16, 2007**  
**9:15 AM – 5:00 PM**



Your tour of Minneapolis includes the oldest pedestrian mall in the country, the **Nicollet Mall** and the second floor **Skyway System** that connects over 60 blocks throughout Minneapolis. The tour will stop at **the Minneapolis Sculpture Garden**, an 11-acre urban garden which features some 40 sculptures by leading American and international artists, the Cowles Conservatory, and Spoonbridge and Cherry, a giant fountain-sculpture by Claes Oldenburg and Coosje van

Bruggen. The Irene Hixon Whitney Bridge, designed by Siah Armajani, connects the Garden to Loring Park and downtown Minneapolis. The Cowles Conservatory, which contains the Regis Gardens, houses the glass-and-wood sculpture Standing Glass Fish, by California architect Frank Gehry.

Next, you tour through Kenwood, one of Minneapolis' oldest and most beautiful residential areas. It is also the location of Mary Tyler Moore's television home. Then you will continue on your way around the famous Chain of Lakes. You'll follow Minnehaha Creek to the legendary Minnehaha Falls. It is here that Longfellow wrote the famous poem about Hiawatha, the Indian brave. You ride through the University of Minnesota campus, home to 46,000 students. You'll visit the Mississippi River at St. Anthony Falls, the birthplace of Minneapolis. Here, you'll also see the Mill City Museum, Guthrie Theater and the Stone Arch Bridge.



Enjoy a stunning view of the Mississippi River and St. Anthony Falls while lunching at **Procna on Main** on historic Main Street. After lunch, you cross back over the Mississippi to the **Mill City Museum** for a tour of the Museum and discover why Minneapolis became the "Milling Capital" of the world.

## Tuesday Luncheon Speaker

Tuesday, October 16, 2007



**Wanda K. Reder** is the IEEE Power Engineering Society President-Elect and Vice President of Power Systems Services for S&C Electric Company. She is joining us to discuss the Society goals, long-range plan, and to introduce the Power Engineering Society Board.

In anticipation of assuming the PES Presidency role in January 2008, she is also interested in receiving feedback from the Committee especially in the areas of membership, employer support, meetings, and approaches for more efficient standards creation.

Lunch will be a choice of Wild Rice Stuffed Chicken, Beef Bourguignonne, or vegetarian.



# Wednesday Dinner Social at the Science Museum Of Minnesota

Wednesday, October 17, 2007



## A DAY IN POMPEII

What nature destroyed, it also preserved.

On riverfront property, in downtown St. Paul, the Minnesota Science Museum brings science to life! Merging modern technology, interactive exhibits and live presentations, the Minnesota Science Museum showcases natural, environmental and medical sciences.

We will be experiencing an exciting special exhibit called "A Day in Pompeii" in which you will see wall-sized frescoes, marble and bronze sculptures, coins, jewelry, and other items that have been recovered from beneath the hardened volcanic materials of Pompeii. Personal audio tour headsets will be provided.

After a private viewing of the Pompeii exhibits, enjoy a delicious sit down dinner while looking out over the Mississippi River.

You will be requested to make a dinner choice of pecan-crusted Walleye, roast turkey breast with apple cider gravy, or vegetarian during the registration process.

Buses will depart from Hilton starting at 5:45PM with last departure at 6:00PM.

Buses will depart the museum to return to the Hilton starting at 9:15PM.

