



TRANSFORMERS COMMITTEE



February 4, 2012

Dear Committee Members and Guests:

You and your companion are cordially invited to attend the upcoming Spring 2012 Meeting of the IEEE/PES Transformers Committee to be held **March 11-15 in Nashville, Tennessee**. It is our distinct honor and pleasure, and the desire of all of us at Baron USA to be your host for this event.

Our meeting will be at the **Renaissance Nashville Hotel** (611 Commerce Street). This hotel is ideally located to take advantage of all that Downtown Nashville has to offer. It is close to the center of Nashville's world famous music, dining, and entertainment area of Lower Broadway and 2nd Avenue. While our company, **Baron USA**, is located 80 miles to the east in the town of Cookeville, Tennessee, we do enjoy coming into the "Big City".

CHANGE IN MEETING FORMAT. Note that at this meeting, we will revise our weekly agenda slightly. One of the biggest changes is dividing our Thursday General Session into two parts. The first part will be on Monday morning, reviewing new business and hot topics for the upcoming week. The second part on Thursday morning will briefly summarize what happened during the week. Additionally, our two technical presentations will be moved to Thursday morning. We hope you will find this new format even more productive.

HOTEL INFORMATION: The discounted group rate for standard guest rooms at the Renaissance Hotel is US\$149/night (single/double), including complimentary wireless Internet in the guest rooms. Visit the Committee's website for a link to registration, or call **+1.615.255.8400** or toll-free at **1.800.327.6618**. Mention "**IEEE Transformers**" to receive the group rate. The cut-off date for the group rate is February 24, but we expect the hotel to sell-out before then.

GETTING THERE: Nashville International Airport is located approximately 8 miles east of downtown. The Airport code is "**BNA**". The hotel does not provide shuttle service. Alternate transportation: Gray Line Downtown Airport Express; fee: \$16 (one-way, scheduled). Estimated taxi fare: \$24.00 (one way). Parking in garage: \$4 to \$8 daily (the cheapest place to park in downtown, but no in-out privileges). Valet parking at the hotel is \$29.50/day, with in-out privileges.

REGISTRATION: Register on-line at www.transformerscommittee.org for tours, social events, and meeting registration. Register by February 24 to receive the \$50 early registration discount. The on-line registration system will be disabled on March 7 to print name badges and to finalize counts. Note that the cost to walk-up register at the meeting is substantially higher than for registering on-line in advance.

WEATHER: Can be unpredictable this time of the year, but daytime highs average 60°F (16°C), and night time lows average 38°F (3°C). This winter has been very mild so please check the forecast closer to meeting time. Dress at the meeting is business casual.

TIME CHANGE: Daylight Savings Time begins Sunday, March 11, at 2:00 am. Move your clocks ahead one hour before retiring Saturday night.

SATURDAY EARLY-BIRD EVENT: Dinner and dancing at the World Famous Wild Horse Saloon. See the Flyer on the website for details. Register for this event by February 24.

SUNDAY EVENING RECEPTION: Baron USA is proud to host this renewal of friendships and formation of new acquaintances. A cash-bar and complimentary hors d'oeuvres will be provided. Indicate your intention to attend this event during the on-line registration process.

TUESDAY LUNCHEON: Ms. Carla Nelson, Senior Engineer from Nashville Electric Service (NES) will discuss the impact of electric vehicles on the grid and how NES is preparing for it. Additionally, there will be a special presentation of the 2012 IEEE Herman Halperin Electric Transmission and Distribution Award to our friend, Dr. Michel Duval. Join us for this interesting and timely technical presentation AND join Dr. Duval as he receives this prestigious award.

WEDNESDAY EVENING RECEPTION: We will have exclusive use of the **Country Music Hall of Fame** to discover why Nashville is called "**Music City**". During our visit, we can browse the hundreds of exhibits and enjoy a sit-down dinner with musical entertainment.

SPOUSE/COMPANION TOURS. Join us on Monday for a tour of two of Tennessee's most stately mansions. Get an idea of how the "to-do" in the South lived in the late 1800's. On Tuesday, get a rare glimpse to what happens behind the scenes of country music's most famous show, the **Grand Ole Opry**. We will also enjoy shopping at the **Gaylord Opryland Resort**, and a guided tour of the world famous **Ryman Auditorium**, once home of the Grand Ole Opry.

TECHNICAL TOURS: NES will host a guided tour of their new (and very unique) Peabody Gas-Insulated Substation, serving the Music City Center.

NASHVILLE PLACES. There are so many great spots in Nashville -- some just blocks from the hotel, others no more than a short cab ride away -- that we are sure you will have no trouble finding your own favorite spots. Here is a good place to look to get started: www.nashvillescene.com.

ADDITIONAL MEETING INFORMATION. Along with this invitation letter, additional meeting information can be downloaded from the Committee's website: www.transformerscommittee.org.

- Meeting Registration Form. This is good guide to review fees before you begin the on-line registration process. Note that as of 2012, on-line registration with a credit card is the primary method of payment. Contact us at transformers@ieee.org if another form of payment is desired.
- Detailed Meeting Schedule & General Session Agenda. If there are any noteworthy changes, an updated schedule will be posted on the Committee's website a few days prior to the meeting.
- Other Informational Flyers, including those for the Tuesday Luncheon, the Saturday Early-Bird Event, the Wednesday Social, Spouse/Companion Tours, Technical Tours, and Technical Presentations (flyers for the Technical Presentations will be added to the website soon).

We at Baron USA are committed to making your visit to **Music City** a memorable one.

Ya'll come and see us, Y'hear!



Derek & Diana Baranowski
Spring 2012 Meeting Host
Baron USA, Inc.
www.baronusa.com

IEEE/PES TRANSFORMERS COMMITTEE

Spring 2012 Meeting; Nashville, Tennessee USA

-- Meeting Registration Summary and Fees --

As of 2012, on-line registration with a credit card is the primary method of payment.

Contact the Committee at transformers@ieee.org if an alternate form of payment is desired.

NOTES

Register on-line with credit card at www.transformerscommittee.org (go to "Next Meeting" page).

Each individual must register for meeting (with fees) to attend the Sunday Reception or any social event or tour.

Print a receipt at the end of the registration process. Receipts will not be provided at the meeting.

Refund provided only if the request is received by Wednesday, March 7. Valid once confirmation email is received.

There is a US\$25.00 service charge for a refund of entire registration; US\$10 for a partial refund.

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

| REGISTRATION FEES -- all fees in US\$ dollars -- all fees stated are "per person" | On or Before Feb 24 | After Feb 24, on or before March 7 | On-site, at Meeting |
|---|---|--|--------------------------------|
| MEETING REGISTRATION | | | |
| Attendee, IEEE member (will be verified with IEEE) | \$225 | \$275 | \$375 |
| Attendee, not IEEE member | \$250 | \$300 | \$400 |
| Attendee, IEEE Life or Committee Emeritus (will be verified) | \$50 | \$100 | \$200 |
| Spouse or Companion, and children age 12 and over | \$75 | \$125 | \$225 |
| Attendee Registration Fee Includes: Entry into Meeting Area, Sunday Reception, coffee breaks, 4 breakfasts (M, T, W, Th) Spouse/Companion Registration Fee Includes: Sunday Reception, 4 breakfasts (M, T, W, Th) | | | |
| A Companion is a "significant other", boy/girlfriend, who is attending for <u>non-commercial</u> reasons, i.e., not attending the technical meetings, etc.). Spouses/companions & children (age 12 and over) must be registered for the meeting - with above fees - to attend any tour or social event. | | | |
| RECEPTION & LUNCHEONS | | | |
| Sunday Evening Welcome Reception -- indicate your plan to attend the reception when you register | -- cost included in meeting registration fee -- | | |
| Monday Standards Development Luncheon -- all SC, WG, TF leaders are encouraged to attend | \$20 | \$20 | \$20 |
| Tuesday Speaker/Awards Luncheon -- Speaker: Ms. Carla Nelson, Nashville Electric Service -- indicate a meal selection: beef, chicken, or vegetarian | \$30 | \$30 | \$30 |
| SOCIAL EVENTS | | | |
| Saturday Evening Early-Bird Event: Wild Horse Saloon -- entry pass & dinner, transportation not included | \$45 | last day to register for this event is February 24 | |
| Wednesday Dinner Social: Country Music Hall of Fame -- museum pass, dinner and transportation | \$85 | \$85 | \$85 |
| SPOUSE/COMPANION TOURS | | | |
| Monday, Mansions of the South | \$85 | \$85 | -- |
| Tuesday, Nashville: Backstage Pass | \$85 | \$85 | -- |
| TECHNICAL TOURS | | | |
| Sunday Morning, NES Substation | \$0 | \$0 | -- |
| Thursday Afternoon, NES Substation | \$0 | \$0 | \$0 |

IEEE/PES TRANSFORMERS COMMITTEE
www.transformerscommittee.org
Spring 2012 Meeting; March 11-15
Hosted by Baron USA, Inc.
Renaissance Nashville Hotel; Nashville, Tennessee USA

NOTES: See Page 4 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</u> |
|--|--|----------------|-----------------------|---------------------------|--|
| Saturday, March 10 | | | | | |
| | No Meeting Registration, No Transformers Committee Meetings | | | | |
| 7:00 pm until ??? | <u>Early-Bird Event:</u> "Dinner, Entertainment and Dancing at the Wildhorse Saloon" (www.wildhorsesaloon.com). -- We are purchasing a few discounted group tickets (includes only entry pass & BBQ dinner). -- Indicate your desire to attend while registering on-line for the Committee Meeting. -- Transportation on your own (by local taxi, etc.). <u>Mention our group name at the front door of the Wild Horse.</u> -- Limited attendance! Deadline to register on-line for this event is February 24. | | | | |
| Sunday, March 11 | | | | | |
| 10:00 am- 12:00 pm | <u>Technical Tour 1A:</u> "Walking Tour of NES Music Center Substation" (same tour as Thursday afternoon) -- Indicate your desire to attend while registering on-line for the Committee Meeting. Will sell-out early! -- Meet in Renaissance Hotel lobby at 9:45 pm. Depart at 10:00 pm, walk to substation. Return by 12 noon. -- Lunch on your own. Weather permitting. | | | | |
| 1:00 pm - <u>5:30 pm</u> | Meeting Registration | | | | Ballroom Foyer |
| 2:00 pm - 3:30 pm | EL&P Delegation -- End-users only please | ++ | J. Murphy | 40 TH | Fisk 1 (2F) |
| 2:00 pm - 5:30 pm | Administrative SC -- Closed meeting, by invitation only | Admin. | B. Chiu | 28 US (w/snack buffet) | Ryman (3F) |
| 2:00 pm - 5:30 pm | NEMA Transformers -- Closed meeting, by invitation only | ++ | C. Drexler | 26 US (w/beverages) | Fisk 2 (2F) |
| 6:00 pm - 8:00 pm | Welcome Reception | | | 450 Reception | Grand Ballroom |
| Monday, March 12 -- Monday Breaks Sponsored by OMICRON electronics Corp. USA ** | | | | | |
| 7:00 am - <u>4:00 pm</u> | Meeting Registration | | | | Ballroom Foyer |
| 7:00 am - 6:00 pm | Internet Cafe' | | | 10 BR | Belmont 1 (3F) |
| <u>7:00 am</u> - 7:50 am | Newcomers Orientation (<u>arrive early!</u>) -- Newcomers & Guests are encouraged to attend! -- Get food in West Ballroom and carry to Center BR | | D. Platts | 80 CL 120 TH | Center Ballroom (with opening in airwall to East) |
| 7:00 am - 7:50 am | Distribution SC Leaders Coordination -- Closed breakfast meeting, by invitation only | | S. Shull | 16 CONF | private room in hotel restaurant |
| 7:00 am - 8:00 am | Breakfast - Attendees (no spouses/companions please) | | | 270 RT (9/tbl) | East Ballroom |
| 8:00 am - 9:00 am | Breakfast - Spouses/Companions (no meeting attendees please) | | | 80 RT (8/tbl) | Bridge Lounge (Level Three) |
| 9:15 am - 3:30 pm | <u>Spouses/Companions Tour:</u> "Mansions of the South". Includes lunch at Belle Meade Mansion. -- Advance registration required. Buses depart the Renaissance at 9:15 am, and return approx 3:30 pm. | | | | |
| 8:00 am - 9:30 am > | General Session, Transformers Committee (Part 1) -- See separate document for meeting agenda -- Session continued on Thursday -- All attendees are encouraged to attend (attendance will be taken as eligibility for Committee membership) | | B. Chiu | 250 MX S1 250 MX S1 | Center Ballroom West Ballroom |
| 9:30 am - 9:45 am | Break (beverages only) | | | | Ballroom Foyer |

** Contact Joe Watson (joe_watson@ieee.org) if you are interested in sponsoring a coffee-break 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> |
|-------------------------------------|---|---|-----------------------|------------------------|---------------------|
| Monday, March 12 (continued) | | | | | |
| 9:45 am - 11:00 am | TF Winding Temp. Indicators | IL | P. McClure | 80 MX | Belmont 2&3 (3F) |
| 9:45 am - 11:00 am | WG 3-ph UG Dist. Transf. C57.12.24 | UTNP | G. Termini | 80 MX | Ryman (3F) |
| 9:45 am - 11:00 am | WG Distr. Substation Transf. C57.12.36 | Dist | J. Murphy | 120 MX | Fisk (2F) |
| 9:45 am - 11:00 am | TF External Dielectric Clearances | DiTests | E. Davis | 150 MX S3 | Music City (2F) |
| 9:45 am - 11:00 am | WG Tertiary/Stabiliz. Windings PC57.158 | PCS | E. Betancourt | 250 MX S3 | Center Ballroom |
| 9:45 am - 11:00 am | WG Failure Analysis & Report. C57.125 | Power | W. Binder | 250 MX S3 | West Ballroom |
| 11:00 am – 11:15 am | <i>Break (beverages only)</i> | | Ballroom Foyer | | |
| | TF Furan Tests | Will not meet. Work is complete. | | | |
| 11:15 am - 12:30 pm | WG Sealed Dry-Type Power Transformer C57.12.52 | Dry | S. Kennedy | 80 MX | Belmont 2&3 (3F) |
| 11:15 am - 12:30 pm | WG Liquid-immersed Secondary Network Transformers C57.12.40 | UTNP | B. Klaponski | 80 MX | Ryman (3F) |
| 11:15 am - 12:30 pm | WG Overhead Distr. Transf. C57.12.20 | Dist | A. Traut | 120 MX | Fisk (2F) |
| 11:15 am - 12:30 pm | TF Moisture in Solid Insulation | IL | J. Sim | 150 MX S3 | Music City (2F) |
| 11:15 am - 12:30 pm | WG PCS Rev. to Test Code C57.12.90 | PCS | M. Perkins | 250 MX S3 | Center Ballroom |
| 11:15 am - 12:30 pm | WG Installation of Power Transf. C57.93 | Power | M. Lau | 250 MX S3 | West Ballroom |
| 12:30 pm - 1:30 pm | <u>Lunch Meeting:</u> Standards Development Review | | B. Bartley | 140 (7/tbl) | East Ballroom |
| | -- Presentation/Discussion: "Changes in the Standards Development Process" | | | | |
| | -- <u>Everyone</u> is welcome to attend. All SC/WG/TF leaders are <u>highly encouraged</u> to attend. | | | | |
| | -- Advance reservation required (\$20 for box lunch). No paper tickets. Admission verified at the door. | | | | |
| 1:45 pm - 3:00 pm | WG Dry-Type Gen. Require. C57.12.01 | Dry | T. Holdway | 80 MX | Belmont 2&3 (3F) |
| 1:45 pm - 3:00 pm | WG Standard Require for Secondary Network Protectors C57.12.44 | UTNP | B. Wimmer | 80 MX | Ryman (3F) |
| 1:45 pm - 3:00 pm | WG 1-ph Padmount Distribution Transformers C57.12.38 (12.21 & 12.25) | Dist | A. Ghafourian | 120 MX | Fisk (2F) |
| 1:45 pm - 3:00 pm | WG Frequency Response Analysis (FRA) Guide PC57.149 | PCS | C. Sweetser | 150 MX S3 | Music City (2F) |
| 1:45 pm - 3:00 pm | TF Audible Sound Revision to Test Code | PCS | R. Girgis | 250 MX S3 | Center Ballroom |
| 1:45 pm - 3:00 pm | WG Tank Rupture & Mitigation PC57.156 | Power | P. Zhao | 250 MX S3 | West Ballroom |
| 3:00 pm - 3:15 am | <i>Break (beverages only)</i> | | Ballroom Foyer | | |
| | TF Particle Count Limits in Mineral Oil | Will not meet. | | | |
| | WG Tap Changer Performance C57.134 | Will not meet. Document awaiting REVCOM approval. | | | |
| 3:15 pm - 4:30 pm | SC HVDC Converter Transformers and Smoothing Reactors | HVDC | M. Sharp | 80 MX | Belmont 2&3 (3F) |
| 3:15 pm - 4:30 pm | WG High Temp. Transformers PC57.154 | IL | R. Marek | 80 MX | Ryman (3F) |
| 3:15 pm - 4:30 pm | WG 3-ph Padmount Distribution Transformers C57.12.34 | Dist | R. Stahara | 120 MX | Fisk (2F) |
| 3:15 pm - 4:30 pm | WG Natural Ester-Based Fluids C57.147 | IF | P. McShane | 150 MX S3 | Music City (2F) |
| 3:15 pm - 4:30 pm | TF Dielectric Frequency Response | PCS | G. Frimpong | 250 MX S3 | Center Ballroom |
| 3:15 pm - 4:30 pm | TBD | | | 250 MX S3 | West Ballroom |
| 4:30 pm - 4:45 pm | <i>Break (beverages and treats)</i> | | Ballroom Foyer | | |
| | WG Dry-Type Test Code C57.12.94 | Will not meet. Work is complete. Will meet at the Fall Meeting. | | | |
| 4:45 pm - 6:00 pm | WG Dry-Type O&M Guide C57.94 | Dry | D. Stankes | 80 MX | Belmont 2&3 (3F) |
| 4:45 pm - 6:00 pm | TF PD in Bushings and PTs/CTs | DiTests | T. Hochanh | 80 MX | Ryman (3F) |
| 4:45 pm - 6:00 pm | WG Tank Pressure Coordinat. C57.12.39 | Dist | C. Gaytan | 120 MX | Fisk (2F) |
| 4:45 pm - 6:00 pm | WG Oil Accept & Maint. Guide C57.106 | IF | B. Rasor | 150 MX S3 | Music City (2F) |
| 4:45 pm - 6:00 pm | WG PCS Revisions to C57.12.00 | PCS | S. Snyder | 250 MX S3 | Center Ballroom |
| 4:45 pm - 6:00 pm | WG Transformers Directly Connected to Generators PC57.116 | Power | G. Hoffman | 250 MX S3 | West Ballroom |

No technical tours or social events planned this evening.

| <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> |
|--|--|---|-----------------------|------------------------|---------------------------|
| Tuesday, March 13 -- Tuesday Breaks Sponsored by Niagara Transformer Corp. ** | | | | | |
| 7:00 am - 12:00 pm | Meeting Registration | | | | Ballroom Foyer |
| 7:00 am - 6:00 pm | Internet Cafe' | | | 10 BR | Belmont 1 (3F) |
| 7:00 am - 8:00 am | Breakfast - Attendees (no spouses/companions please) | | | 270 RT (9/tbl) | East Ballroom |
| 8:00 am - 9:00 am | Breakfast - Spouses/Companions (no meeting attendees please) | | | 80 RT (8/tbl) | Bridge Lounge |
| 9:15 am - 4:30 pm | <u>Spouses/Companions Tour: "Nashville Backstage Pass". Includes lunch at Ellendale's Restaurant.</u> -- Advance registration required. Buses depart the Renaissance at 9:15 am, and return approx 4:30 pm. | | | | |
| | WG Transportation Issues PC57.150 | Will not meet. Document in final balloting. | | | |
| 8:00 am - 9:15 am | WG Req. for Instrument Transf. C57.13 | IT | R. McTaggart | 80 MX | Belmont 2&3 (3F) |
| 8:00 am - 9:15 am | TF DPV Grid Transformers | PCS | H. Shertukde | 80 MX | Ryman (3F) |
| 8:00 am - 9:15 am | WG Enclosure Integrity C57.12.28, C57.12.29, C57.12.31, C57.12.32 | Dist | R. Olen | 120 MX | Fisk (2F) |
| 8:00 am - 9:15 am | WG Oil Reclamation Guide PC57.637 | IF | J. Thompson | 150 MX S3 | Music City (2F) |
| 8:00 am - 9:15 am | WG PC57.152 Field Test Guide | Stds | J. Verner | 250 MX S3 | Center Ballroom |
| 8:00 am - 9:15 am | WG Functional Life Tests, De-energized Tap Changers (DETC) PC57.157 | Power | P. Hopkinson | 250 MX S3 | West Ballroom |
| 9:15 am - 9:30 am | <i>Break (beverages only)</i> | | | Ballroom Foyer | |
| | WG Revision to Loading Guide C57.94 | Will not meet. Work is complete. | | | |
| | WG Impulse Test Guide C57.98 (Power) | Will not meet. | | | |
| 9:30 am - 10:45 am | TBD | | | 80 MX | Belmont 2&3 (3F) |
| 9:30 am - 10:45 am | WG Std Require. for Bushings C57.19.01 | Bush | A. Del Rio | 80 MX | Ryman (3F) |
| 9:30 am - 10:45 am | WG Bar Coding for Distribution Transformers C57.12.35 | Dist | L. Matthews | 120 MX | Fisk (2F) |
| 9:30 am - 10:45 am | WG DGA Natural Ester Fluids PC57.155 | IF | P. Boman | 150 MX S3 | Music City (2F) |
| 9:30 am - 10:45 am | TBD | | | 250 MX S3 | Center Ballroom |
| 9:30 am - 10:45 am | WG Wind Power Transf. PC57.12.16 | PCS | D. Buckmaster | 250 MX S3 | West Ballroom |
| 10:45 am - 11:00 am | <i>Break (beverages only)</i> | | | Ballroom Foyer | |
| 11:00 am - 12:15 pm | WG Milli-amp Current Transf. C57.13.7 | IT | H. Alton | 80 MX | Belmont 2&3 (3F) |
| 11:00 am - 12:15 pm | WG Bushing Applicat. Guide C57.19.100 | Bush | T. Spitzer | 80 MX | Ryman (3F) |
| 11:00 am - 12:15 pm | WG Impulse Tests C57.138 (Distribution) | DiTests | J. Crotty | 120 MX | Fisk (2F) |
| 11:00 am - 12:15 pm | WG Guide for DGA in LTCs C57.139 | IF | D. Wallach | 150 MX S3 | Music City (2F) |
| 11:00 am - 12:15 pm | WG Loss Evaluation Guide C57.120 | PCS | A. Traut | 250 MX S3 | Center Ballroom |
| 11:00 am - 12:15 pm | WG Temperature Rise Test Procedures in Section 11 of C57.12.90 | IL | P. Powell | 250 MX S3 | West Ballroom |
| 12:15 pm - 1:30 pm | <u>Speaker Luncheon & Awards Presentation</u> Guest Speaker: Ms. Carla Nelson, Nashville Electric Service Topic: "Planning and Preparing for Electric Transportation" ... also Special Awards Presentation: 2012 IEEE Herman Halperin Award, to Mr. Michel Duval -- Advance registration is necessary. Paper tickets are not provided. Admission verified at the door. | | | | 250 (8/tbl) East Ballroom |
| | WG Dry-Type Loading Guide PC57.96 | Moved to 3:15 pm. | | | |
| 1:45 pm - 3:00 pm | | | | 80 MX | Belmont 2&3 (3F) |
| 1:45 pm - 3:00 pm | WG GSU Bushing Standardization | Bush | TBD | 80 MX | Ryman (3F) |
| 1:45 pm - 3:00 pm | WG Revision to Low Frequency Tests | DiTests | B. Poulin | 120 MX | Fisk (2F) |
| 1:45 pm - 3:00 pm | WG DGA Factory Temperature Rise Tests PC57.130 | IF | J. Thompson | 150 MX S3 | Music City (2F) |
| 1:45 pm - 3:00 pm | WG Life Extension C57.140 | Power | R. James | 250 MX S3 | Center Ballroom |
| 1:45 pm - 3:00 pm | TF Transformer Efficiency and Loss Evaluation (DOE Activity) | Dist | P. Hopkinson | 250 MX S3 | West Ballroom |
| 3:00 pm - 3:15 pm | <i>Break (beverages and treats)</i> | | | Ballroom Foyer | |

** Contact Joe Watson (joe_watson@ieee.org) if you are interested in sponsoring a coffee-break at a future meeting.

KEY

Note: A PC projector will be furnished in each meeting room. Arrive early to ensure that equipment operates/synchs 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 (special set-up)

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)

TH -- theater seating (w/head table for 2)

RT -- multiple roundtables

US -- U-shape table

MX -- mix classroom & theater (w/head 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> |
|---|---|-------------------------------|-----------------------|------------------------|---------------------|
| Tuesday, March 13 (continued) | | | | | |
| | WG Terminal Markings C57.12.70 | Will not meet. Work complete. | | | |
| 3:15 pm - 4:30 pm | WG Dry-Type Loading Guide PC57.96 | Dry | R. Marak | 80 MX | Belmont 2&3 (3F) |
| 3:15 pm - 4:30 pm | WG Neutral Grounding Devices PC57.32 | PCS | S. Kennedy | 80 MX | Ryman (3F) |
| 3:15 pm - 4:30 pm | TBD | | | 120 MX | Fisk (2F) |
| 3:15 pm - 4:30 pm | WG Revision to Gas Guide C57.104 | IF | R. Ladroga | 150 MX S3 | Music City (2F) |
| 3:15 pm - 4:30 pm | WG Transformer Paralleling Guide | Power | T. Jauch | 250 MX S3 | Center Ballroom |
| 3:15 pm - 4:30 pm | WG Revisions to Impulse Test Sections of C57.12.00 and C57.12.90 | DiTests | P. Riffon | 250 MX S3 | West Ballroom |
| 4:30 pm - 4:45 pm | <i>Break (beverages only)</i> | | | Ballroom Foyer | |
| 4:45 pm - 6:00 pm | TBD | | | 80 MX | Belmont 2&3 (3F) |
| 4:45 pm - 6:00 pm | TBD | | | 80 MX | Ryman (3F) |
| 4:45 pm - 6:00 pm | WG Test Data Reporting C57.12.37 | Dist | J. Crotty | 120 MX | Fisk (2F) |
| 4:45 pm - 6:00 pm | TF Moisture in Oil | IF | B. Rasor | 150 MX S3 | Music City (2F) |
| 4:45 pm - 6:00 pm | TBD | | | 250 MX S3 | Center Ballroom |
| 4:45 pm - 6:00 pm | IEC TC-14 Technical Advisory Group (all interested individuals welcome) | ++ | P. Hopkinson | 250 MX S3 | West Ballroom |
| No technical tours or social events planned this evening. | | | | | |

Wednesday, March 14 -- Wednesday Breaks Sponsored by Tulstar Products, Inc. ***

| | | | | | |
|---|--|---------------------------|--------------|----------------|------------------|
| No Meeting Registration, No Technical Tours, No Spouse/Companion Tour | | | | | |
| 7:00 am - 6:00 pm | Internet Cafe' | | | 10 BR | Belmont 1 (3F) |
| 7:00 am - 8:00 am | Breakfast - Attendees (no spouses/companions please) | | | 270 RT (9/tbl) | East Ballroom |
| 8:00 am - <u>9:30 am</u> | Breakfast - Spouses/Companions (no meeting attendees please) | | | 80 RT (8/tbl) | Bridge Lounge |
| 7:00 am - 7:50 am | SC Meetings Planning (arrive early, food buffet in room) | Meetings | G. Anderson | 24 CL | Belmont 2 (3F) |
| 8:00 am - 9:15 am | EL&P Delegation (Users only meeting) | moved to Sunday afternoon | | | |
| 8:00 am - 9:15 am | SC Instrument Transformers | IT | R. McTaggart | 100 MX S3 | Music City (2F) |
| 8:00 am - 9:15 am | SC Insulation Life | IL | B. Forsyth | 300 MX S3 | Center & West BR |
| 9:15 am - 9:30 am | <i>Break (beverages only)</i> | | | Ballroom Foyer | |
| 9:30 am - 10:45 am | SC Bushings | Bush | P. Zhao | 100 MX S3 | Music City (2F) |
| 9:30 am - 10:45 am | SC Distribution Transformers | Dist | S. Shull | 300 MX S3 | Center & West BR |
| 10:45 am - 11:00 am | <i>Break (beverages only)</i> | | | Ballroom Foyer | |
| 11:00 am - 12:15 pm | SC UG Transf. & Network Protectors | UTNP | C. Niemann | 100 MX S3 | Music City (2F) |
| 11:00 am - 12:15 pm | SC Dielectric Tests | DiTests | L. Wagenaar | 300 MX S3 | Center & West BR |
| 12:15 pm - 1:30 pm | Lunch (on your own) | | | | |

*** Contact Joe Watson (joe_watson@ieee.org) if you are interested in sponsoring a coffee-break 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> |
|--|--|----------------|-----------------------|------------------------|---------------------|
| Wednesday, March 14 (continued) | | | | | |
| 1:30 pm - 2:45 pm | SC Dry Type | Dry | C. Johnson | 100 MX S3 | Music City (2F) |
| 1:30 pm - 2:45 pm | SC Power Transformers | Power | T. Lundquist | 300 MX S3 | Center & West BR |
| 2:45 pm - 3:00 pm | <i>Break (beverages and treats)</i> | | | Ballroom Foyer | |
| 3:00 pm - 4:15 pm | SC Insulating Fluids | IF | S. McNelly | 100 MX S3 | Music City (2F) |
| 3:00 pm - 4:15 pm | SC Performance Characteristics | PCS | E. teNyenhuis | 300 MX S3 | Center & West BR |
| 4:15 pm - 4:30 pm | <i>Break (beverages only)</i> | | | Ballroom Foyer | |
| 4:30 pm - 5:45 pm | SC Transformer Standards | Stds | B. Bartley | 300 MX S3 | Center & West BR |
| 6:30 pm - 10:00 pm | <u>Dinner Social</u> : "Country Music Hall of Fame and Museum". Advance registration is necessary. -- Museum opens at 6:30 pm. Dinner served at 8:00 pm. Browse exhibits before and after dinner. -- Buses begin shuttling from the Renaissance Hotel to the museum at 6:15 pm (or optional 10 minute walk). -- Last bus departs the Renaissance Hotel at 7:00 pm. -- Buses begin shuttling back to hotel at 9:00 pm, and continue shuttling until 10:00 pm (or optional walk). -- Paper tickets will not be provided. Admission verified with a registration list as you enter the museum. | | | | |

Thursday, March 15

No Meeting Registration, No Spouses/Companions Tours, No Internet Cafe'

| | | | |
|--------------------------|---|----------------------|---------------------------|
| 7:00 am - 8:00 am | Breakfast - Attendees (no spouses/companions please) | 270 RT (9/tbl) | East Ballroom |
| 8:00 am - <u>9:30 am</u> | Breakfast - Spouses/Companions (no meeting attendees please) | 72 RT (8/tbl) | Bridge Lounge |
| 8:00 am - 9:15 am | Technical Presentation: "Geo-magnetically Induced Current (GIC): Effects on Power Transformers and the Power System; Monitoring, and Potential Mitigation", by Bernabeu, Fugate, Girgis and Koza -- See 2-page abstract flyer on website | 350 MX S1 | Center and West Ballrooms |
| ~ 9:15 am - 9:30 am | <i>Break (beverages only)</i> | | |
| > 9:30 am - 10:45 am | Technical Presentation (continued) | 350 MX S1 | Center and West Ballrooms |
| 10:45 am - 11:00 am | <i>Break (beverages only)</i> | | |
| > 11:00 am - 12:30 pm | General Session, Transformers Committee (Part 2) -- <u>All attendees</u> are encouraged to attend -- See separate document for meeting agenda | B. Chiu 350 MX S1 | Center and West Ballrooms |
| 2:00 pm - 4:00 pm | <u>Technical Tour 1B</u> : "Walking Tour of NES Music Center Substation" (same tour as Sunday morning) -- Indicate your desire to attend while registering on-line for the Committee Meeting. -- Meet in Renaissance Hotel lobby at 1:45 pm. Depart at 2:00 pm, walk to substation. Return by 4:00 pm. -- Lunch on your own. Weather permitting. | | |

Friday, March 16

No Transformer Committee Meetings, No Internet Cafe', No Social Events or Tours.

*** Contact Tom Prevost (tprevost@ieee.org) if you are interested in making a technical presentation at a future meeting.

FUTURE COMMITTEE MEETINGS

Fall 2012 - October 21-25; Milwaukee, Wisconsin USA. Hosted by Waukesha Electric Systems

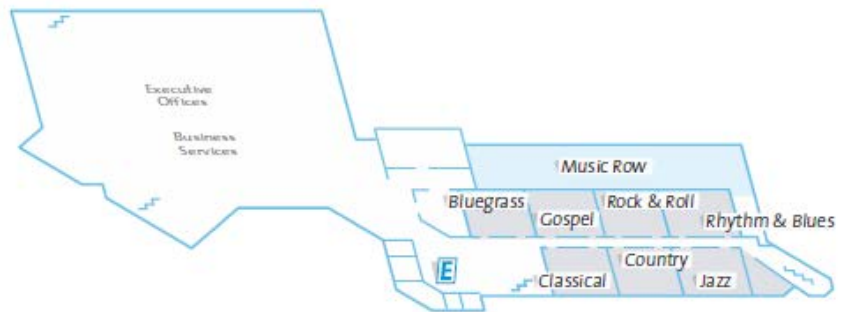
Spring 2013 - March 17-21; Munich Germany. Hosted by Maschinenfabrik Reinhausen

Fall 2013 - St. Louis, Missouri USA. Hosted by H-J Enterprises

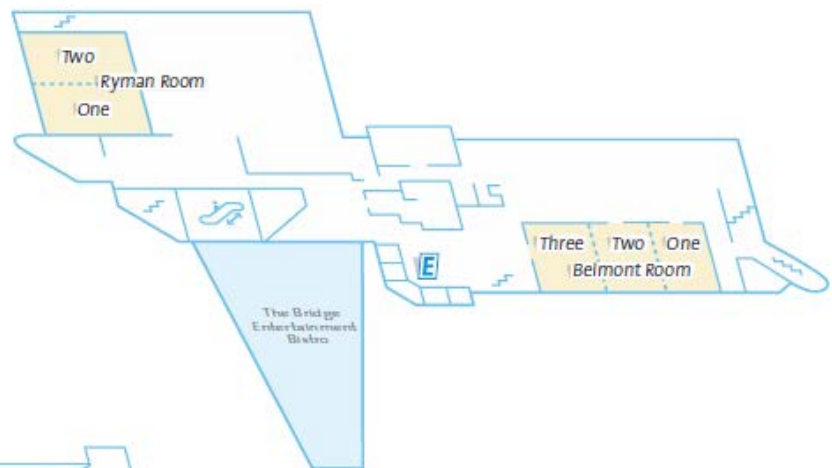
Renaissance Nashville Hotel

611 Commerce Street; Nashville, Tennessee 37203
(615) 255-8400

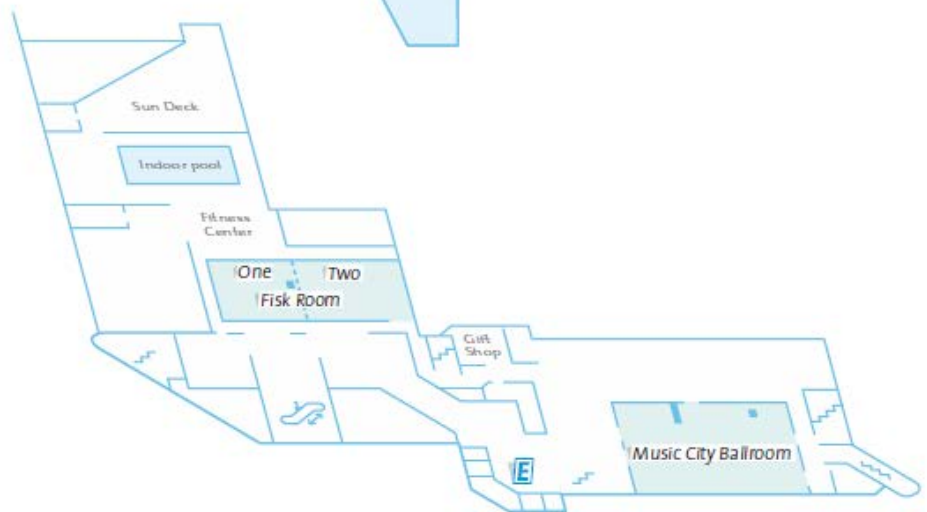
Level Four
(4F)



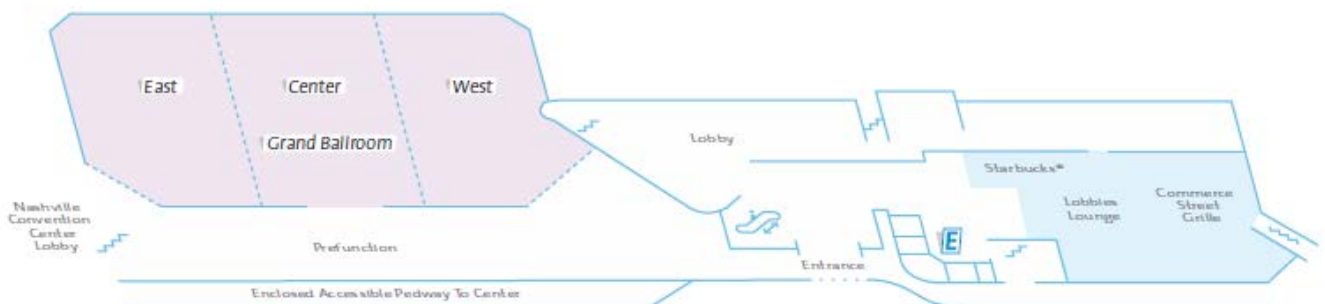
Level Three
(3F)



Level Two
(2F)



Lobby Level



IEEE/PES TRANSFORMERS COMMITTEE

Spring 2012 Meeting; Nashville, Tennessee USA

Chair: Bill Chiu Vice Chair: Don Platts Secretary: Stephen Antosz Treasurer: Greg Anderson

General Session, Part 1

Monday, March 12; 8:00 am - 9:30 am

-- Note: Attendance will be taken at this session, as eligibility for Committee membership

1. Welcome and Announcements Bill Chiu
2. Approval of Minutes from Fall 2011 Meeting Bill Chiu
3. Vice Chair's Report Don Platts
4. Secretary's Report Stephen Antosz
5. Treasurer's Report Greg Anderson
6. Awards and Recognition Ed Smith
7. Report from Administrative Subcommittee Meeting Bill Chiu
8. Hot Topics for the Upcoming Week Subcommittee Chairs
9. New Business & Wrap-up Bill Chiu

General Session, Part 2

Thursday, March 15; 11:00 am - 12:30 pm

1. Chair's Remarks and Announcements Bill Chiu
2. Transformer Standards Bill Bartley
3. Meetings Subcommittee Greg Anderson
4. Additional Awards and Recognition (if any) Ed Smith
5. Report from Technical Subcommittees (decisions made during the week)
 - 5.1. Performance Characteristics Ed teNyenhuis
 - 5.2. Power Transformers Tom Lundquist
 - 5.3. Underground Transformers & Network Protectors Carl Niemann
 - 5.4. Bushings Peter Zhao
 - 5.5. Dry Type Transformers Chuck Johnson
 - 5.6. Distribution Transformers Steve Shull
 - 5.7. Dielectric Tests Loren Wagenaar
 - 5.8. HVDC Converter Transformers & Reactors Mike Sharp
 - 5.9. Instrument Transformers Ross McTaggart
 - 5.10. Insulating Fluids Sue McNelly
 - 5.11. Insulation Life Bruce Forsyth
6. Editor's Report TBD
7. Reports of Liaison Representatives
 - 7.1. Standards Coordinating Committee No. 4 Paulette Payne Powell
 - 7.2. IEC TC-14 Technical Advisor to USNC Phil Hopkinson
 - 7.3. CIGRE Jean-Christophe Riboud
8. New Business (continued from Monday) and Wrap-up Bill Chiu

Early-Bird Event
Saturday, March 10
-- Wild Horse Saloon --

Put on your best pair of boots and come join us for an evening of dinner, dancing and fun at:

Nashville's #1 Dining and Entertainment Destination



Home to hot music and dancing, the WHS is rooted deep in Country music traditions. Housed in a three-level historic warehouse, it is a 66,000 square-foot (6,100 sq-m) live music and dance destination. It serves simultaneously as a restaurant, bar, concert site, dance venue and TV studio.



Itinerary

- 6:30-7:00 pm: Meet in hotel lobby to get your pass
- 7:00 pm: Depart hotel for the Wild Horse
It's a short 10-minute walk, or grab a taxi!
- 7:30 pm: Buffet dinner available
- ???: Return to the hotel on your own

Dinner Menu

Hickory Barbecue Pit

- Wildhorse salad with buttermilk ranch and zesty Italian dressing
- Award winning hickory pit smoked pork shoulder
- Char-grilled citrus herb chicken breast
- Hoppin Johns' black eyed peas
- Red bliss potatoes roasted with Vidalia onions, red and green bell peppers
- Broccoli, zucchini and squash seasoned with an aromatic spice blend and butter
- Southern yeast rolls and corn biscuits
- Country Southern fruit cobbler
- Coffee & tea

NOTE: Last day to register on-line for this event is February 24!

Guest Speaker: Carla Nelson, P.E.

A Senior Engineer with Nashville Electric Service's Design Engineering and Distribution Planning Department in Nashville Tennessee, Ms. Nelson is responsible for planning the electric distribution system within Nashville's inner loop and is project lead for electric transportation at NES. She holds a Bachelor of Electrical Engineering degree from Auburn University and a Master of Science degree from the University of Tennessee. She is a licensed professional engineer in the state of Tennessee.



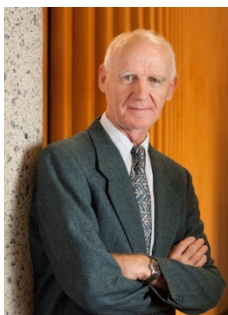
Topic: Planning and Preparing for Electric Transportation

What happens when this replaces this?



It's not that simple!

- Indicate a meal selection when you register for the meeting (beef, chicken or vegetarian).
- Paper tickets will not be provided. Admission to the event and meal selection will be verified with a registration list at the door.



Dr. Michel Duval

With special presentation ...

. . . of the 2012 IEEE Herman Halperin Electric Transmission and Distribution Award to Dr. Michel Duval. The award recognizes Dr. Duval as an IEEE Life Fellow and Fellow of the Chemical Institute of Canada, for development and leadership in condition monitoring of high-voltage transformers and related equipment.

Spouse/Companion Tour Monday, March 12 -- Mansions of the South --

Begin the day with a tour of **Belle Meade Plantation**, the "Queen of the Tennessee Plantations". This fully restored Greek Revival mansion was completed in 1853. The grounds include a large carriage house, stable, log cabin, winery and other original buildings.



Next, we will go to the **Belmont Mansion** where lunch will be served in the Grand Salon, and from which the tour will begin with a 20-minute history of the Mansion and its most famous owner, Nashville's premier socialite, Adelia Acklen. An ornate Italianate design, the home features many of the original furnishings and includes marble fountains, cast-iron gazebos, and statuary which are still standing as evidence of ornate, formal gardens.

Both tours last approximately an hour in duration. They also offer extensive gift shops, which features an array of little indulgences from jewelry to merchandise.



Itinerary

- 9:15 am: Bus departs hotel for Driving City Tour
- 10:30 am: Arrive Belle Meade Plantation for tour & lunch
- 1:30 pm: Arrive Belmont Mansion for tour
- 2:30 pm: Depart to hotel
- 3:30 pm: Return to hotel (approx. time)

Lunch Menu

Blackberry Pulled BBQ Chicken

Sweet and Spicy Blackberry BBQ Sauce over Pulled Roasted Chicken, Baked Three Beans, Southern Cole Slaw, Corn Bread, and Banana Pudding with Fresh Whipped Cream, Water or Ice Tea.

A vegetarian option is also available. Indicate this or any special needs when you register for the meeting.

REGISTER EARLY! Attendance will be limited.

Spouse/Companion Tour Tuesday, March 13 -- Nashville: Backstage Pass --



No trip to Nashville would be complete without experiencing the phenomenon of the world famous **Grand Ole Opry**. You will get a rare glimpse of what happens behind the scenes of country music's most famous show as well as learn the fascinating story of the Grand Ole Opry. You will be guided through the backstage area of the Opry House as well as watch a video that gives some unique history of this famous establishment.

You will enjoy a stop at the **Gaylord Opryland Resort**, a must see in Nashville. A buffet lunch will be at the family owned Ellendale's Restaurant, nestled in the original Purity Dairy farm house which was erected in 1885.

The next and final stop will be at the world famous **Ryman Auditorium**, one of Nashville's signature historical country music landmarks which was home to the Grand Ole Opry at one time. If the hallowed walls of the Ryman Auditorium could talk, the remarkable story they would tell is unmatched in entertainment history. It was during these its early years the Ryman became known as the "Carnegie Hall of the South". Today, the Ryman remains true to its diverse entertainment legacy, hosting concerts of all genres by a new generation of entertainers for a new generation of audiences.



Itinerary

- 9:15 am: Bus departs hotel for Grand Ole Opry
- 9:45 am: Begin Behind the Scenes Tour
- 10:45 am: Depart to Opryland Resort for Shopping
- 1:00 pm: Lunch at Ellendale's Restaurant
- 2:00 pm: Depart to Ryman Auditorium
- 4:30 pm: Return to hotel (approx. time)

Menu for Lunch at Ellendale's Restaurant

The buffet changes every week but there is always a pasta bar, hummus, salads, cold pastas and salads, two hot entree items, vegetables, starch, desserts and soup.

REGISTER EARLY! Attendance will be limited.

-- Country Music Hall of Fame and Museum --



The Country Music Hall of Fame and Museum has been the home of America's music since 1967. In keeping with the cultural significance of the music and the heroic achievements of those who form its membership, the Museum opened in a \$37 million landmark, new building in May 2001. The Museum presents the crown jewels of its vast collection to illustrate country music's story as told through the turns of two centuries. A treasure trove of historic country video clips and recorded music, dynamic exhibits and state-of-the-art design, regular menu of live performances and public programs. Stroll through the museum at your leisure before dinner and be entertained by local musicians during and after dinner.

Advance registration required. Register on-line when you register for the meeting.

Paper tickets will NOT be provided. Admission verified with a registration list as you enter the museum.

Itinerary

6:15 pm: Buses begin boarding at the Renaissance Hotel

Note: The museum is a 10-12 minute walk from the Renaissance Hotel. Feel free to walk!

6:30 pm: Museum opens. Browse exhibits before and after dinner.

8:00 pm: Dinner is served

9:00 pm: Buses begin shuttling back to hotel

(feel free to continue browsing exhibits)

10:00 pm: Last bus departs museum.

Feel free to walk back!

Dinner Menu

Oven-roasted chicken quarters, grilled molasses-glazed pork loin, Southern-style potato salad, sour cream mashed potatoes, turnip greens, fried "shoe peg" corn, cornbread and Southern-style biscuits, mixed berry cobbler, chocolate-banana bread pudding.

A cash-bar will be available. An additional vegetarian main dish will be offered at the event upon request.



Technical Tour
Sunday Morning, March 11
&

Thursday Afternoon, March 15

-- Walking Tour: NES Peabody Substation --

When city developers began planning the construction of the Music City Center, they realized that one of Nashville Electric Service's three downtown substations would need to be relocated to make room for the new convention center. What the developers thought would be a simple project turned out to be much more than they had anticipated. NES reviewed the convention center authority's plan, and as Civil and Environmental Engineering Manager Wes Allen said, "Immediately we noticed something wrong." To move the entire facility, would require a substantially larger investment of time and money than had been budgeted. Since the entire downtown business district relies on NES' three central substations for power, relocating one of them would pose an enormous challenge in terms of maintaining a reliable, integrated downtown secondary network. Of the 60 substations located on the NES power grid, the new Peabody Substation is the only GIS system. Gas insulation is rare in the U.S. The Peabody Substation is the one of the only facilities of its type that will be completely enclosed when completed.



Itinerary - Sunday

9:45 am: Meet in Renaissance Hotel lobby
10:00 am: Depart for Substation
Easy 15-minute walk
12:00 pm: Return to hotel (approx. return time)

Itinerary - Thursday

1:45 pm: Meet in Renaissance Hotel lobby
2:00 pm: Depart for Substation
Easy 15-minute walk
4:00 pm: Return to hotel (approx. return time)

NES reserves the right to limit or cancel this tour due to unexpected emergency or operational concerns.