

# **Electric Energy T&D** MAGAZINE www.electricenergyonline.com

# **OFFICIAL SHOW GUIDE**



# The 2007 International Conference of Doble Clients

March 25 - 30, 2007 Westin Hotel Copley Place Boston, MA USA

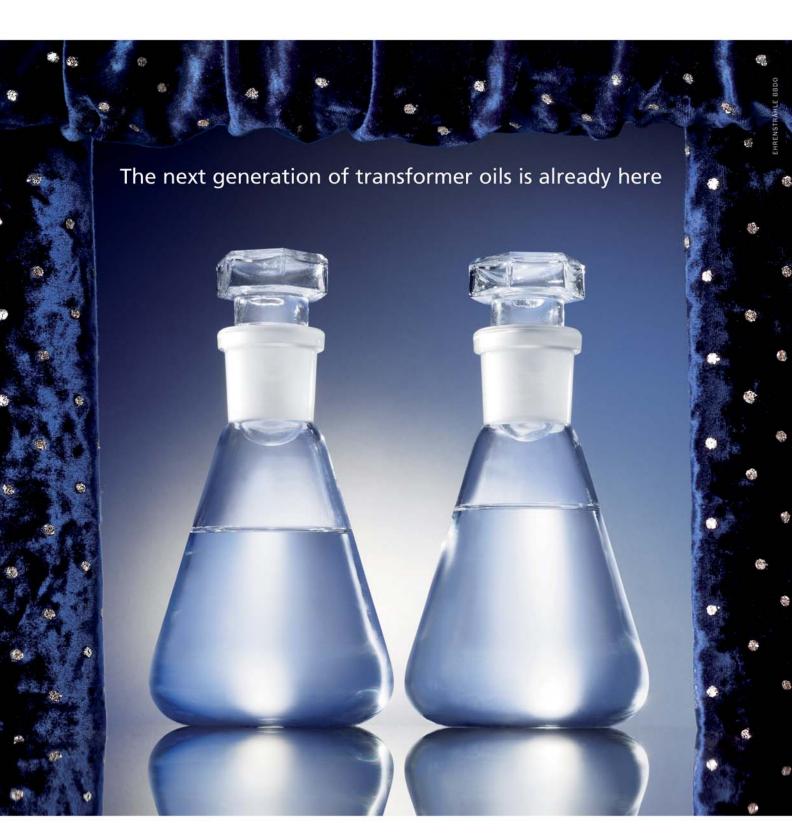
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## See inside for:

Conference Schedule of Events

 Industry Expo Floor Plan
 Exhibitor Information
 Hospitality Suites
 Companion Activities

...and more!



Take a close look at our new Nova Grades. Their key benefits are the good performances regarding copper corrosion and oxidation stability; both have positive impact on the lifetime economy of a transformer. The range includes uninhibited, trace inhibited and fully inhibited products meeting tomorrows more stringent requirements. Visit our homepage to find out more about the transformer oils of the future.





Fiber optic sensors for direct measurement of transformer winding hot-spot temperature



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# to know more about our exclusive





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# 2007 INTERNATIONAL CONFERENCE OF DOBLE CLIENTS

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IMPORTANT: All Conference Presenters are required to check in at the Presenter Check-in Desk, located at the 4th floor, at least 24 hours before their scheduled technical presentation. Please be prepared to provide a copy of your paper and PPT presentation on CD, disk, or memory stick.

# 11 ... THE INDUSTRY EXPO AT THE 2007 INTERNATIONAL CONFERENCE OF DOBLE CLIENTS

In conjunction is the 2007 International Conference of Doble Clients, Doble Engineering is sponsoring an exposition of organizations that provide products and services to the electric power industry. This Industry Expo will help....

### 22....HOSPITALITY SUITES AT THE 2007 INTERNATIONAL CONFERENCE OF DOBLE CLIENTS

In addition to the Industry Expo Conference attendees should take advantage of the extensive schedule of Hospitality Suites open in the evenings after the Expo closes. Hospitality Suites offer a relaxed networking opportunity, and many ...



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the industry.

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# Transformer problems?

# This is where your Calisto should have been.





Don't be left picking up the pieces. Catastrophic transformer failures can easily be prevented with the Calisto on-line, dissolved hydrogen and water monitor.

Calisto monitors hydrogen production and detects transformer faults at their earliest stages thereby reducing the number of unforeseen outages and preventing catastrophic failures.

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# Calisto prevents catastrophic failures – one transformer at a time.

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- Prevents premature failures
- Provides cost effective monitoring of transformer temperature

### **Extends transformer life:**

- Helps estimate the insulation degradation rate
- Complements predictive hot-spot algorithm simulations

### FEATURES

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- No gage factor or calibration
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- Voltage or current output
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# **2007 Schedule of Events**

Note: Utility and Testing company delegates may attend all of the activities listed below Manufacturers. Refiners & Insurers may attend eventhing EXCEPT the Blue Committee Meetings

	Sunday, March 25, 2007
:00 pm - 5:00 pm	Tutorial: The Importance of Proper Bushing Replacement
5:00 pm - 7:30 pm	Doble Client Reception
	Monday, March 26, 2007
7:00 am - 8:00 am	Newcomers Orientation
7:00 am - 8:00 am	Intelligent Diagnostic Device User Group & Time Travel User Group
8:00 am- 10:00 am	Training Track: Understanding Apparatus Control Circuits
3:00 am - 10:00 am	Asset and Maintenance Management Committee Meeting & Arresters, Capacitors, Cables, and Accessories Committee Meeting
10:00 am - 12:00 pm	Rotating Machinery & Insulating Materials Committee Meetings
11:30 am - 1:30 pm	Doble Expo Open
12:00 pm - 1:30 pm	EuroDoble Committee Meeting
1:30 pm - 2:30 pm	Opening Session and Keynote Address
2:30 pm - 5:00 pm	Asset and Maintenance Management Technical Presentations
2:30 pm - 5:00 pm	Training Track : Basic Power Factor
5:00 pm - 7:00 pm	Doble Expo Open
	Tuesday, March 27, 2007
7:00 am - 8:00 am	Doble Test Assistant Software User Group Meeting
7:30 am - 12:00 pm	Rotating Machinery Technical Presentations
7:30 am - 12:00 pm	Insulating Materials Special Session on Corrosive Sulfur
1:30 pm - 3:30 pm	Insulating Materials Technical Presentations
1:30 pm - 3:30 pm	Tutorial: Utility Compliance to NERC Standards
3:30 pm - 5:30 pm	Rotating Machinery Tutorial: Compliance to NERC Standards
3:30 pm - 5:30 pm	Bushings, Insulators, and Instrument Transformers Committee Meeting
5:00 pm - 7:00 pm	Industry Expo Open
6:00 pm - 8:30 pm	Field Processing Subcommittee (members only)
	Wednesday, March 28, 2007
7:00 am - 8:00 am	Sweep Frequency Response Analysis User Group, Part 1
8:00 am - 10:00 am	Circuit Breaker Committee Meeting
3:00 am - 12:00 pm	Protection, Automation, Communications & Controls Technical Presentations
3:00 am - 10:00 am	Training Track: Reading Transformer Nameplates, Winding Resistance and Insulation Resistance
10:00 am - 12:00 pm	Transformers Committee Meeting
11:30 am - 1:30 pm	Industry Expo Open
12:30 pm - 1:30 pm	Sweep Frequency Response Analysis User Group, Part 2
1:30 pm - 5:00 pm	Protection, Automation, Communications & Controls Committee Meeting
1:30 pm - 5:00 pm	Bushings, Insulators, and Instrument Transformers Technical Presentations
5:00 pm - 7:00 pm	Industry Expo Open
6:00 pm - 9:00 pm	Oil Committee Meeting & Dinner (members only)
	Thursday, March 29, 2007
7:00 am - 8:00 am	Training Track: Doble Test Assistant - DTAWeb Training
7:00 am - 8:00 am	Dissolved Gas Analysis of Load Tap Changers Committee Meeting
3:00 am - 12:00 pm	Circuit Breakers Technical Presentations
9:30 am - 5:00 pm	Training Track : Basic Protective Relaying
1:30 am - 1:30 pm	Industry Expo Open
12:00 pm - 1:30 pm	Advisory Lunch & Meeting (members only)
1:30 pm - 3:00 pm	Arresters, Capacitors, Cables, and Accessories Technical Presentations
3:00 pm - 5:00 pm	Transformers Technical Presentations
6:00 pm - 7:00 pm	Client Reception & Dinner
	Friday, March 30, 2007



# The 2007 International Conference of Doble Clients

The agenda for this year's event is based on the traditional Doble Client Conference program and includes the Client Committee meetings ("Blue Badge" delegates only) and the respective sessions of technical presentations for each of the nine primary Client Committees. User Group meetings and Tutorials are added around these meetings and sessions.

Open during the mid-day breaks and after the main sessions Sunday through Wednesday (includes the first 2 days of exclusively Doble exhibits); the Industry Expo gives Conference delegates the opportunity for refreshment and networking with colleagues and exhibitors. In the evenings, various organizations invite attendees to their Hospitality Suites for a more informal networking experience.

The 2007 program kicks off with a tutorial on The Importance of Proper Bushing Replacement on Sunday afternoon from 1-5 pm, followed by a Welcome Reception and the opening of the Doble Product Exhibit area. The traditional Thursday night dinner provides an enjoyable break towards the end of the intensive program.

What follows here in the Electric Energy Magazine's Official Conference and Show Guide is a detailed schedule of the week's events.

# **Registration & Information**

Conference Registration and Information Desk Westin Copley Place, 4th Floor

All Conference attendees, Exhibitors, and Suite Holders MUST stop by the Doble Registration Desk to check in and obtain their name badges prior to attending any Conference or Industry Expo events.

### **Registration Hours:**

 Sunday, March 25
 10:00 AM - 7:00 PM

 Monday, March 26
 7:00 AM - 6:00 PM

 Tuesday, March 27
 7:00 AM - 6:00 PM

 Wednesday, March 28
 7:00 AM - 6:00 PM

 Thursday, March 29
 7:00 AM - 7:00 PM

 Friday, March 30
 7:00 AM - 12:00 PM

Important: Name badges are required for admission to all Conference sessions, Client Committee Meetings, and other events.

Important note regarding Supplier/Manufacturers who are not Doble Clients:

Suppliers/Manufacturers who are not Doble Clients are not permitted access to Conference activities other than the Industry Expo. If you are not certain of your status ask at the Registration Desk.

# 2007 Conference Presentations Presenters Information

IMPORTANT: All Conference Presenters are required to check in at the Presenter Check-in Desk, located at the 4th floor, at least 24 hours before their scheduled technical presentation. Please be prepared to provide a copy of your paper and PPT presentation on CD, disk, or memory stick.

### **Technical Documents**

Preliminary Technical Presentations will be posted on the Doble web site. Additional files will be added to the site as they are received, formatted and approved.

## Access to the 2007 Conference Presentations

An email address with the link to the preliminary technical documents will be sent to all registered Doble clients and guests. The 2007 Conference Documents can also be accessed on the Doble Portal using your company ID and password.

Hard copies of the 2007 Conference documents will not be distributed at the Conference. However a self-service station equipped with computers and printers will be available to you to review and print presentations.

# **Companion Activities**

Companions of Conference delegates are requested to wear their name badges to all activities and events. Spouses, family members and companions of Conference attendees are invited to visit the Doble Companion Meeting Room to meet with others and plan recreational activities as the guests of Doble Engineering. The room will be open each day from 8:30 am – 10:30 am.

### **Companion Meeting Room Locations:**

Monday, March 26 Tuesday, March 27 Wednesday, March 28 Thursday, March 29 Friday, March 30 Turners Restaurant Great Republic Great Republic Great Republic Great Republic

The Companion Meeting Room is sponsored by UPTIME MONITORING & DIAGNOSTICS SUITE Including: Delta X Research Digital Inspections Cannon Technologies/Cooper Power Enoserv Incon Physical Acoustics Weschler Instruments

Please stop by Monday, Tuesday, & Wednesday evenings when their Hospitality Suite will be open at this same location!

### Companion Activities: Sunday, March 25 Conference Welcome Reception in Doble Product Display Areas 5:00 PM – 7:30 PM

Essex Foyer & Staffordshire, 3rd Floor

Companions are welcome to attend this evening reception as well as the receptions in the Industry Expo Monday through Wednesday evenings. Companions will receive complimentary drink tickets for these receptions when they pick up their name badges.



### Monday, March 26 Companion Ice-Breaker Brunch 8:30 AM – 10:30 AM

Turners Restaurant

There is no charge to attend this fun mixer event....companions only, please! We encourage all companions and guests of attendees to come to this brunch reception. You'll have the opportunity to meet other guests and get acquainted while enjoying the ambiance of Turners Restaurant. Great door prizes will be given away, but you need to be present to win!

**Note:** After Monday companions are "on their own" for breakfast. The Companion Meeting Room is designated as a meeting area for Companions on Tuesday through Friday mornings.

# Complimentary Yoga Class Exclusively for Doble Companions! 2:00 PM – 3:00 PM

Great Republic Suite, 7th Floor of the Westin Copley

Enjoy an hour of relaxing yoga compliments of Doble! Towels will be provided for use as mats. Beginner-level.

### Tuesday, March 27 The New ICA Museum Tour

On December 10th, the Institute of Contemporary Art unveiled its new home on Boston's waterfront offering a new, visionary building poised to capture the stimulation of contemporary culture and the excitement of a revitalized waterfront area.



Award-winning architects Diller Scofidio + Renfro designed the ICA, conceiving the building both "from the sky down," as a contemplative space for experiencing contemporary art, and "from the ground up," providing dynamic areas for public enjoyment. The design weaves together interior and exterior space, producing shifting perspectives of the waterfront throughout the museum's galleries and public spaces.

Among the breathtaking and provocative works being exhibited are pieces that seem to bend, twist, morph, or enter a new dimension as artists such as Anish Kapoor, Bridget Riley, and James Turrell use optical effects to alter the way we perceive ourselves and the space around us.

### Featured Exhibit: SUPER VISION

December 10, 2006 - April 29, 2007

Superhuman vision, once the stuff of comic books, is no longer a fantasy, with new technologies transforming both what can be seen and how we are able to see. Super Vision examines how contemporary artists have responded to and interpreted this changing nature of vision, presenting work by 27 international artists in painting, sculpture, video, and photography.

**Cost:** \$18.00 per person includes round trip transportation and museum admission Depart Westin: 10:00 AM Return to Westin: 2:00 PM

Optional lunch on own at Water Café (If you wish to return to The Westin before lunch, transportation will be available.)

### Wednesday, March 28

# Theatre Matinee: Miss Witherspoon by Christopher Durang (limited availability)

Presented at The Lyric Stage, 140 Clarendon St., Boston, MA Playwright Christopher Durang's Pulitzer-Prize-finalist, Miss Witherspoon, begs the question "does life get any better after death?" Veronica, after committing suicide, is destined to return to earth, reincarnated over and over, learning that the "other side" offers no respite. Navigating through the rough seas of fate and free will (and large objects falling from the sky), she searches for truth and peacefulness, questioning ideas of faith in a "waiting room" between death and rebirth.

Cost: \$30.00 per person Depart Westin: 1:30 PM (walking) Return to Westin: 4:00 PM (walking)

### Thursday, March 29

# Thursday Evening Client Reception & Banquet 6:00 PM, America Ballroom, 4th Floor

Join other conference delegates for this gala evening event! There is no charge for Doble clients and their companions – preregistration and meal selection is required.

# Fiber Optic Temperature Monitoring System for the T&D Industry

### NORTECH TT



### Starting at \$2495 USD

- 1,2 4 and 6 channels
- Analog outputs (4-20 mA, 0-1 mAV)
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- Surpasses environmental standards

### The Nortech TT provides accurate, direct and real-time knowledge of winding temperature

### Use

- Operational Condition Assessment
- Load Planning
- Asset management
- End of life determination

### Benefits

- Provides assistance in transformer design and rating verification.
- Safely maximizes loading and overloading.
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The annual Client Conference program is created by the Doble Client Committees, each having unique expertise in a particular area. These committees of clients and members of the Doble staff meet in September or October each year to plan the following Boston Conference.

In addition to the International Conference of Doble Clients, Doble also hosts regular conferences all over the world. The agenda and technical presentations are designed to meet the unique needs of each region.

### **Client Committee Meetings:**

Advisory (Committee Officers Only) Thursday, March 29, 12:00 pm – 1:30 pm American North, 4th Floor

Arresters, Capacitors, Cables, and Accessories (ACCA) Monday, March 26, 8:00 am – 10:00 am Essex North, 3rd Floor

Asset and Maintenance Management (AMM) Monday, March 26, 8:00 am – 10:00 am America North, 4th Floor

Bushings, Insulators and Instrument Transformers (BIIT) Tuesday, March 27, 3:30 pm – 5:30 pm

America North, 4th Floor

### Circuit Breakers (CB)

Wednesday, March 28, 8:00 am – 10:00 am America North, 4th Floor

### Dissolved Gas Analysis of Load Tap Changers (DGA of LTCs)

Thursday, March 29, 7:00 am – 8:00 am America North, 4th Floor

### EuroDoble

Monday, March 26, 12:00 pm – 1:30 pm Mastiff Boardroom, 7th Floor

Field Processing Subcommittee Meeting and Dinner (members only) Tuesday, March 27, 6:00 pm – 8:30 pm Turner Fisheries Private Dining Room

### Insulating Materials (IM)

Monday, March 26, 10:00 am – 12:00 pm Essex North, 3rd Floor

### Oil Committee Meeting and Dinner (members only)

Wednesday, March 28, 6:00 pm – 9:00 pm Turner Fisheries Private Dining Room

### Protection, Automation, Controls & Communications (PACC)

Wednesday, March 28, 1:30 pm – 5:00 pm America North, 4th Floor

### Rotating Machinery (RM)

Monday, March 26, 10:00 am – 12:00 pm America North, 4th Floor

### Transformers (TX)

Wednesday, March 28, 10:00 am – 12:00 pm America North, 4th Floor

### Who can attend Doble Client Committee Meetings?

All attendees with a blue badge can attend the Client Committee meetings. YOU DO NOT NEED TO BE A COMMITTEE MEMBER TO ATTEND\*

Blue badges are given to Doble clients and guests from one of the following categories: Electric Power Utilities, Industrial Maintenance Divisions, and Non-Manufacturing Test and Maintenance Service Companies. All "blue badges" attendees are welcome to attend the Client Committee meetings regardless of whether they are an official member of that Committee.

\*The exceptions to this rule are the Oil Committee, Advisory Committee and Field Processing Subcommittee, which are for members or invited guests only.

### How to Join a Committee

If you represent an Electric Power Utility, Industrial Maintenance Divisions, and Non-Manufacturing Test and Maintenance Service Company and are interested in joining a committee please contact or speak with the committee secretary. Members are expected to participate in the activities of the committee, which include deciding papers and themes for future conferences and completing technical questionnaires relating to the committee. Members receive several emails each year with agendas for upcoming meetings and project updates.

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Introducing our new package of smart energy automation solutions.

Cooper Power Systems is proud to present our new combined package of smart energy automation solutions. With the recent acquisition of Cybectec, Inc. and Cannon Technologies, we now offer built-in intelligence, best-in-class components, and expertise that spans from the meter to the substation to the operations center. At Cooper Power Systems, we're bringing our customers new ways to increase productivity, improve real-time operations, enhance reliability, and reduce the cost of delivering electrical power, now and in the future—a future that's looking brighter than ever.





Automated Meter Reading 
 Load Management 
 Substation and Feeder Automation 
 Asset Monitoring 
 Data Management





## Software User Groups & Meeting Times

In addition to the Doble Client Committees there are four User Groups which will also be meeting at the Conference:

### Intelligent Diagnostic Device (IDD) User Group

Monday, March 26, 7:00 am - 8:00 am St. George B/C/D, 3rd Floor

### Doble Test Assistant (DTA) Software User Group

Tuesday, March 27, 7:00 am – 8:00 am Parliament and Adams, 7th floor

### Sweep Frequency Response Analysis (SFRA) User Group – Part 1

Wednesday, March 28, 7:00 am - 8:00 am America North, 4th Floor Recommended for existing Doble SFRA users – hardware, software and test application issues will be discussed.

### Sweep Frequency Response Analysis (SFRA) User Group – Part 2

Wednesday, March 28, 12:30 pm - 1:30 pm America North, 4th Floor Open to all Conference delegates - you do not need to be an existing SFRA user to benefit from this meeting. Case studies and interpretation of results will be discussed.

### Time Travel User Group (TTUG), formerly TRX User Group

Monday, March 26, 7:00 am - 8:00 am Essex North, 3rd Floor



### Earn Continuing Education Credits for Attending this Doble Conference!

Delegates to the 2007 International Conference of Doble Clients may earn a maximum of 4.8 CEU credits (based on attendance from Sunday at 1 pm through Friday at 12:00 pm).

Note: CEUs are calculated at a rate of 1.0 CEU for every 10 hours of instruction or sessions.

We will be able to calculate your exact number of credits by scanning your name badge when you enter a meeting. Make sure and have your badge scanned for each meeting you attend to ensure you receive all vour credits.

### What are Continuing Education Credits (CEUs)?

Doble Engineering is an Authorized Provider of Continuing Education Credits (CEUs) through the International Association of Continuing Education and Training (IACET). Continuing Education Credits provide a permanent record of the educational accomplishments of an individual who has completed one or more significant non-credit educational experiences. Awarding the CEUs approved by IACET also provides a quality indicator for your continuing education and training programs because it means you have been reviewed and approved for complying with internationally recognized standards. One Continuing Education Unit (CEU) is defined as ten content hours of participation in an organized continuing education experience under responsible sponsorship, capable direction, and qualified instruction. CEUs are issued at all Doble Seminars and Conferences that meet the IACET standards.

### Where are CEUs Accepted?

Continuing Education credits are widely accepted by colleges and educational institutions as official credits towards professional licensing requirements and degree programs. As the organization's name implies, the CEUs can be offered for classes held anywhere in the world, provided the event meets IACET criteria.

For more information on where Doble CEUs are accepted go to: http://www.iacet.org/resources/accept\_ceu.htm

### What are "Learning Outcomes"?

Learning Outcomes give attendees a guideline of the topics that will be covered during the event and the knowledge attendees can expect to gain during the event.

At the 2007 International Conference of Doble Clients surveys will be distributed. These surveys will outline the Learning Objectives to be achieved during that day's Conference program. Your completion of these daily surveys provides Doble with a record that you attended the day's event and are eligible to receive the corresponding CEUs.

### How can I obtain a record of my received Continuing Education Credits (CEUs) from Doble?

All event participants can obtain their CEU credit records by contacting events@doble.com.

Doble will retain records of attendance at CEU events for a minimum of seven years. This information will only be released to the attendee themselves or at the request of their company. In order to obtain a copy of your transcript participants must submit a written request in order to obtain their records (email is acceptable). Request will NOT be taken over the phone!! If someone other than the actual participant request's information, the participant in question will be notified to obtain approval before the request is honored.



# The Industry Expo at the 2007 International Conference of Doble Clients

In conjunction is the 2007 International Conference of Doble Clients, Doble Engineering is sponsoring an exposition of organizations that provide products and services to the electric power industry. This Industry Expo will help managers, engineers, and technicians to learn about the latest tools that are available to them. All those attending the Client Conference are welcome to attend. The Industry Expo will be held on the 3rd floor of the

Westin Hotel Copley Place.

### 2007 Industry Expo Show Hours:

### Sunday, March 25, 2007

5:00 PM – 7:30 PM Welcome Reception with Doble Product Displays

### Monday, March 26, 2007

11:30 AM – 1:30 PM - Doble Products Exhibit (light lunch provided) 5:00 PM – 7:00 PM - Evening Reception with Doble Products Displays

### **Tuesday, March 27, 2007** 5:00 PM – 7:00 PM - Evening Recept

5:00 PM – 7:00 PM - Evening Reception (Opening of ALL Exhibiting Companies)

### Wednesday, March 28, 2007

11:30 AM – 1:30 PM - Afternoon Industry Expo (light lunch provided) 5:00 PM – 7:00 PM Evening Industry Expo with Reception

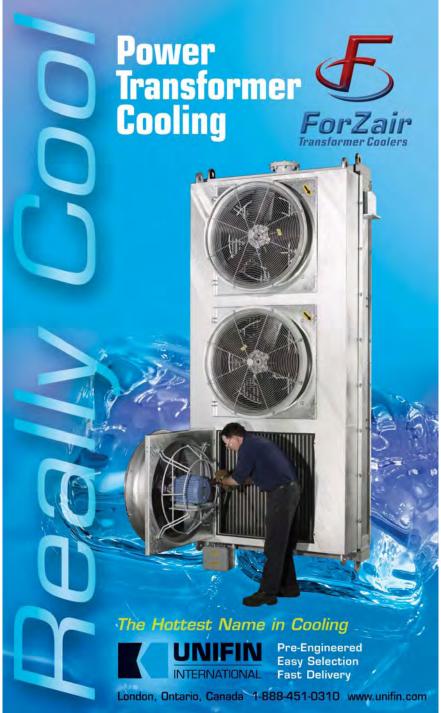
### Thursday, March 29, 2007

11:30 AM – 1:30 PM - Afternoon Industry Expo (light lunch provided)

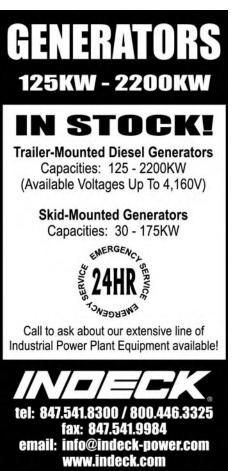
# Enter the Industry Expo and Suites Game Card Prizes and Raffles!

All Conference delegates will receive a Game Card in their registration materials with a series of Trivia Questions tied in to the different exhibitors and suite holders at the Conference. Delegates will need to walk around the Expo and Suites to find the answers to the questions, which will be posted on signs near different booths. Completed Game Cards will be dropped into a box and winners drawn for prize giveaways.

Also look for the 3rd and 7th floor Prize Boards that will let you know what other raffle prizes are being offered by Exhibitors and Suiteholders and when they will be raffled off!



Company BOOTH #
A-Line E.D.S54
American Electrical Testing Co.,Inc
Arbiter Systems Inc12
BCS Switchgear, Inc65
Circuit Breaker Sales Company, Inc28
Colt Atlantic Services, Inc5
Cooper Power Systems – Energy Automation
Solutions/Cooper Power Systems
COSA Instrument Corporation15
Delta Instrument LLC
Delta Star
Delta X Research, Inc11
Designed Metal Connections (DMC)
Digital Inspections, a KEMA Company11
Doble Engineering CompanyStaffordshire
Dynamic Ratings, Inc
Electric Energy T & D Magazine
Electric Power Systems
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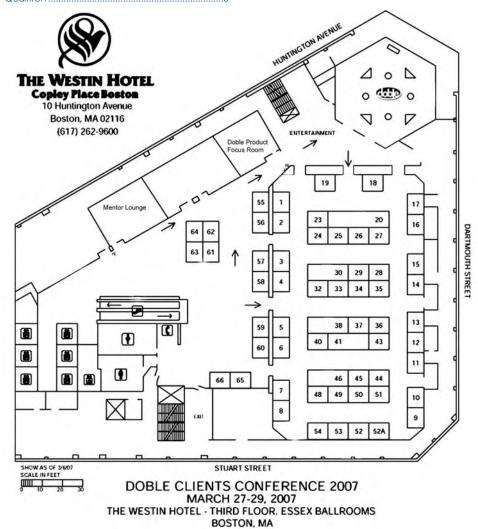


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A-Line E.D.S.

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Booth 15

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Booth 53

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Booth 31

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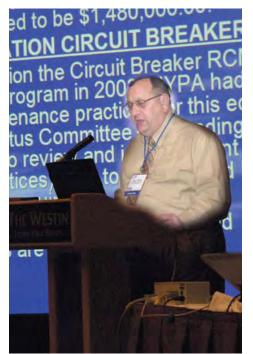
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21 Millpark Ct. Maryland Heights, MO 63043 USA 314-890-9999 Steven C. Reed, PE <u>S.Reed@EPS-International.com</u>

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In the rapidly changing climate of North American power industry, Electricity Today remains committed to the buyers and sellers responsible for maintaining and operating utility and industrial, commericial and institutional power systems. In every issue, Electricity Today details the business and technical developments driving the power industry, As engineering, construction, and maintenance professionals search for solutions to today's problems, they turn to Electricity Today for articles that address the changing environment of the industry.

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Electro Composite Inc (ECI) manufactures a wide range of insulating products for the electrical market, such as solid insulation bushings up to 138kV for transformers, breakers, GSU transformers and generators, station post replacement insulators, hydro generator pole insulation, and speciality insulation products for a wide range of applications.

### Enerco Transformers & Power Supply Systems Booth 30

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Enerco designs and manufactures power transformers in sizes up to 800 MVA, 500 KV, 1550 KV BIL, mobile substations, and furnace and rectifier transformers. The Enerco Transformer plant, one of the most modern in the world, is located in the industrial zone of Ramat Hasharon, Israel. By the end of 2006 more than 800 power transformers, 200 of them having a capacity of exceeding 100 MVA, of outstanding quality and high reliability, were designed, manufactured and tested in this facility.

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Booth 32

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Booth 40

Booth 4

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Booth 27

Booth 58

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Booth 19

3033 Scott Boulevard Santa Clara, CA 95054-3316 USA 408-727-1600 Fax: 408-727-1677 Brett Sargent b.sargent@lumasenseinc.com www.lumasenseinc.com

LumaSense (formerly Luxtron) is the leading supplier of fiber optics temperature measurement systems for Energy, Industrial and Medical markets. With more than 25 years experience and over 1,000 transformers with fiber optics, LumaSense clearly has the experience directly measuring winding hot spot temperatures that customers demand. Our probes have over a 99% success rate for installation without breaking. Additionally, LumaSense also has entered the gas detection market with products for SF6 leak detection and diagnostics. LumaSense's Photoacoustic Spectroscopy (PAS) is redefining how gasses are measured.

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services for high quality assessment of dielectric fluids and early detection of incipient faults in oil-filled electrical equipment. Located in Montreal, Canada the specialized laboratory was established in 1965 as the first commercial laboratory to offer gas-in-oil analysis in North America.

Booth 25

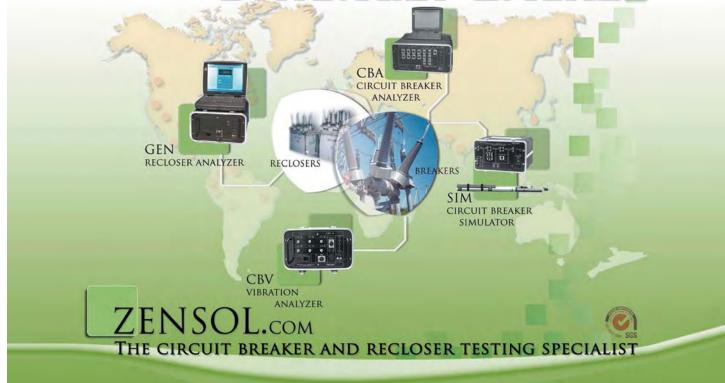
Neoptix Fiber Optics Sensors

Booth 20

1415, Charest Ouest, Suite 220 Quebec City, Quebec G1N 4N7 Canada 418-687-2500 Fax: 418-687-2524 Jean-Francois Meilleur <u>ifmeilleur@neoptix.com</u> www.neoptix.com

Neoptix Fiber Optic Sensors, Inc. provides a complete range of fiber optic monitoring equipment for true and direct winding temperature monitoring of dry and oil-filled transformers. Neoptix temperature probes are ruggedized and designed to withstand long term measurement. Monitoring systems are available with 1 to 512 channels, with most common communication protocols including serial, Ethernet, MODBUS, DNP 3 and IEC 61850.

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469-733-1500 866-387-9051 Fax: 469-733-1501 Bruce Nichols bnichols@nicholstechnology.com www.nicholstechnology.com

Bruce Nichols, the original founder and previous owner of High Voltage Supply has now established his new company in Grand Prairie, Texas, a suburb of the Dallas/Ft. Worth Metroplex. Co-owners include Jamie Kerbyson, Manuel Garza and Stanley Hart, all previous employees of High Voltage Supply. The company manufacturers electrical contacts and replacement parts for load tap changers and circuit breakers. Design, reverse engineering and manufacturing is supported by state-ot-the-art design and inspection equipment and an ISO9001 Quality System. Current R&D projects includes collaboration with EPRI and Powertech Labs on the development of "Smart Contacts" with wear indicator implants.

### Normandy Machine Company

Booth 24

250 Industrial Drive Troy, MO 63379 USA 636-528-8913 Gerald Woodruff jerry@normandymachine.com

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Opsens is a leading developer, manufacturer and supplier of a wide range of fiber optic sensors and associated signal conditioners based on proprietary and patent pending technologies. Opsens sensors provide long-term accuracy and reliability in the harshest environments needing to measure pressure, temperature, strain and displacement in the oil and gas, medical, energy and laboratory sectors. Clients attending the Doble conference are invited to stop at the Opsens booth to discover the Zero-Fault™ system and the 100% yield guarantee that are both Opsens exclusivities.



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Pauwels, a wholly-owned subsidiary of Crompton Greaves Limited, is one of the world leaders in the design and manufacturing of innovative three-phase distribution and power transformers, and integrated solutions. Pauwels operates manufacturing plants (transformers) and subsidiary companies (contracting & services) on 3 continents.

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### Photon Control Inc

200-8363 Lougheed Hwy Burnaby, BC, Canada, V5A1X3 604 422 8861 Fax: 604 422 8418 Ivan Melnyk

### imelnyk@photon-control.com www.photon-control.com

Photon Control develops and manufactures optoelectronic products for measurement and control. All Photon's products have competitive advantage in performance and cost. Product line for power industry includes: fiber optic temperature sensors, contact wear monitors for LTC and circuit breakers, fiber optic spectrometers for arc monitoring, remote temperature sensors, total sulfur analyzer of transformer oil.

### Booth 41

Booth 49



### **Power Asset Recovery**

3801 Whipple Ave NW Suite 1 Canton, OH 44718 330-493-1890 Fax: 330-493-1893 Mark Haas mark@power-asset.com www.power-asset.com

Power Asset Recovery Corporation (PARC) is one of the largest dealers in the world for New Surplus/Used Reconditioned distribution and power transformers up to 950,000 KVA, 500 kV. We have an extensive stock of transformers that we own and transformers on consianment from utilities and industrial customers. Go to www.bigpowertransformers.com. We also have transformer parts in stock including new/unused transformer bushings up to 500kV and related substation components such as SF6 breakers. Go to www.bigtransformerparts.com. PARC now represents a new transformer manufacturer that builds power transformers up to 200,000 KVA and mobile substation transformers up to 50,000 KVA, a company that dismantles and scraps transformers, and a company that provides transformer field service.

"Quite simply, we are the best at what we do"

### **Power Substation Services**

4 Industrial Park Drive Wheeling, WV 26003 USA 304-232-1590 Fax: 304-232-1599 Scott Reed sreed@powersubsvcs.com

### www.powersubsvcs.com

Power Substation Services (PSS) specializes in the installation and maintenance of transformers and other electrical equipment. PSS has mobile rigs for performing hot oil reclamation on energized transformers. This process removes the harmful contaminants such as moisture, sludge and gases that build up over time in the oil. Hot oil reclamation will also protect transformers from failure while extending their lives. PSS also has a process known as PCBXsm. This process removes PCBs from mineral oil in energized transformers. Other services offered by PSS include oil sampling, acceptance testing and a variety of other transformer maintenance services.

Qualitron	
1385 Fairport Road	
Fairport, NY 14450	
585-586-1515	
Dave Billings	
dbillings@gualitrolcorp.com	
www.aualitolcorp.com	

A leading supplier of substation instrumentation and automation equipment, Qualitrol provides intelligent electronic devices, substation information servers, fault locators and software packages for making intelligent loading decisions and extending transformer life.

### Booth 8 Reinhausen

2549 N 9th Ave Humboldt, TN 38343 USA 731-824-4004 Fax: 731-784-7682 John Gamane johng@bestltc.com www.BESTLTC.com

Reinhausen offers a Maintenance-Free long-range vision as regards the accessories on a Power Transformer. This includes On-Load Tap Changers, Dehydrating Breathers, Off Circuit Tap Changers, Voltage Control, as well as Oil Level and Temperature Instrumentation.

### S & C Electric Co

6601 North Ridge Boulevard Chicago, IL 60626 USA 773-338-1000 Steve Strand www.sandc.com S&C is a global provider of electrical power switching

and protection equipment for the electrical power switching industry, and also offers a wide range of engineering, laboratory, and testing services for power users.

### Booth 7 S.D. Myers

Booth 52

Booth 9

Booth 56

180 South Ave, Tallmadge OH 44278 USA 330-630-7000 Becky Compton <u>becky.compton@sdmyers.com</u> www.sdmyers.com

S.D. Meyers Transformer Consultants provide analytical, training, and international field service in order to extend the relaible life of customers' substation equipment and to reduce their PCB liability.

### Sankosha

Booth 3

406 Amapola Avenue, Suite 135 Torrance, CA 90501 USA 310-320-1661 888-711-2436 Fax: 310-618-6869 Bruce Thatcher bthatcher@sankosha-usa.com www.sankosha-usa.com

Sankosha Corporation has provided products and services to the electric power and telecommunications industries for 77 years. SAN-EARTH, the world's first conductive cement, is a permanent maintenance free product that dramatically lowers ground system resistance and surge impedance. SAN-EARTH was developed by Sankosha in cooperation with the Chubu Electric Power Company in Japan for the grounding of transmission towers in areas where soil resistivity is high and access difficult. SAN-EARTH is economical, safe and it will not harm the environment. More than 25 years of ongoing tests of installed electrodes prove consistent performance for the long term. Applications include transmission and distribution lines, power plants, substations, wind turbines, communication systems. Sankosha's Gas Discharge Tubes (GDT's) are well known for providing reliable equipment protection in low voltage circuits. In today's atmosphere of diversified supplier mergers, Sankosha still provides personal professional support in our niche in the GDT market.

Booth 57

Schweitzer Engineering Laboratories Inc Booth 62

2350 NE Hopkins Courf Pullman, WA 99163 USA 509-332-1890 Fax: 509-334-8795 Gastón Ortega gastor@selinc.com www.selinc.com

SEL is a leading manufacturer of protection, monitoring, automation, and communications solutions covered by a worldwide 10-year warranty, with the strongest customer support in the industry. SEL is known for innovative, reliable solutions, such as the SEL-387 transformer management system, which provides thermal overload and through-fault recording for accurate maintenance scheduling.

Booth 66

### Serveron Corp

3305 NW Aloclek Drive Hillsboro, OR 97124 USA 503-924-3200 Fax: 503-924-3290 Steve Jennings Steve.Jennings@serveron.com

Steve.Jennings@serveron.cc www.serveron.com

Serveron develops, delivers and supports on-line transformer monitor products, as well as diagnostic services that transform the way utility assets are managed. We offer the TM series of on-line transformer DGA monitors with an 8 gas and a 3 gas model. The Serveron Monitoring Service provides automatic alarm notification, gas trending and diagnostic capabilities. Serveron asset condition assessment and management tools are critical to utilities in improving grid reliability, while optimizing the management and economics of their asset base.

### Siemens Service Solutions Booth 1 7000 Siemens Road Wendell, NC 27591 USA

919-365-2329 Jeff Phelan jeff.phelan@siemens.com www.usa.siemens.com/energy Siemens provides Medium and High Voltage Substation Products an associated services.

### Solidification Products Int'l. Inc. Booth 60

P.O. Box 35 215 Village Street Northford, CT 06472 USA 203-484-9494 Fax: 203-484-9492 Bill Gannon bgannon@oilbarriers.com www.oilbarriers.com

SPI has provided storm water drainage for new or existing substations, oil tanks & storm drains for years. Our products have helped 100's of companies to comply with SPCC regulations for oil spill containment. Petro-Barrier, Petro-Pipe & Petro-Plug passively allow water to drain while absorbing oil sheen and sealing in the event of an oil spill.

*Electric* Energy T&D Magazine | The 2007 International Conference of Doble Clients



### Southern States, LLC

Booths 34, 35

Booth 48

- .. --

30 Georgia Avenue Hampton, GA 30228 USA 770-946-4562 Fax: 770-946-8106 Tom Speas SALES@SOUTHERNSTATESLLC.COM www.southernstatesllc.com

Southern States, LLC is a world leader in the design and manufacture of high voltage switching devices. The company offers disconnect switches, circuit switchers, load and line switchers, capacitor and reactor switchers, and a unique current measuring device

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201 Inner Drive	
Le Sueur, MN 56058 USA	
800-442-8077	
Fax: 612-465-6190	
John Laux	
iohn@transfluidservices.com	

### www.Transfluidservices.com

. .

TransFluid Services, Inc. is a national service company specializing in fluid handling services on large transformers. These services include vacuum filling of new transformers, degas, dehydration, acid stripping and oil improvement to exceed new oil specifications. We also provide retro filling services of existing transformers with the new vegetable based environmentally friendly transformer fluids and provide customer fluid sampling services.

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equipment against animal caused powe	r outages.	portable, & mobile
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Trantech Radiator Products is the largest manufacturer of transformer radiators in North America. We have been supplying radiators for over fifty years. Products include 9", 12", 15" and 520mm radiators and radiator valves.

### **Unifin International LP**

5721 McNeven Court Dublin, OH 43017 USA 614-336-1590 Fax: 614-336-1872 Dick Amos dick.amos@unifin.com www.unifin.com

Unifin International is the world's leading supplier of transformer FOFA coolers, Cardinal transformer oil circulatiing pumps and motor/generator air and hydrogen coolers. Both extruded tube and platefin technologies are available, with the choice of cooling surface being determined by customer preference and the specifics of the application. Unifin supplies both OEM and users with a flexible line of standardized coolers that allow bolt-in installation of replacement coolers without requiring piping modifications. Cardinal Pumps has recently purchased the Harley Products division in Twinsburg, OH, and Unifin has also purchased the GE Tidewater generator cooler factory

### Utility Automation & Engineering T&D PennWell, 1421 S Sheridan Road Tulsa, OK 74112 USA

603-891-9731 Kathleen Wackowski kathleenw@pennwell.com www.utilityautomation.com

Utility Automation & Engineering T&D magazine is the power industry's leading journal on electric power transmission and distribution automation systems, engineering and information technology. Topics covered in the magazine include automatic meter reading (AMR), distribution automation, AM/FM/GIS, transmission system technology, T&D operations and maintenance, and T&D equipment and hardware.

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### Booths 63, 64

Booth 61

Booth 17

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Power transformers for Utility, Industrial / Commercial applications, Virginia Transformer Corp is your single source for all your needs and has been since 1971.

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### www.voncorp.com

The Von Corporation manufactures high-voltage test equipment and primary underground cable fault location equipment.

### Waukesha Electric Systems, Inc.

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Largest U.S. manufacturer of power transformers (in the range of 10-200 MVA, 345kV) and valued supplier of complete transformer service solutions. Our components division, High Voltage Supply, offers transformer, LTC and breaker components including a line of Transformer Health Products™ as well as training and reverse-engineering capabilities

### **ZTZ Services International**

786-252-6965 Zalya Berler berlerg@bellsouth.net

### www.ztzservices.com

ZTZ Services international is engineering and consulting firm that specializes in on-line in service testing and diagnostic for large power transformers, free standing CT's and CCVT's.

The company manufactures hardware and instrumentation for on-line PF bushings, CT and CCVT testing and monitoring.

ZTZ Services international has recently introduces a unique software for design review of the power transformers which includes the following modeling of the transformer design:

Winding dynamic stability at short circuit stress

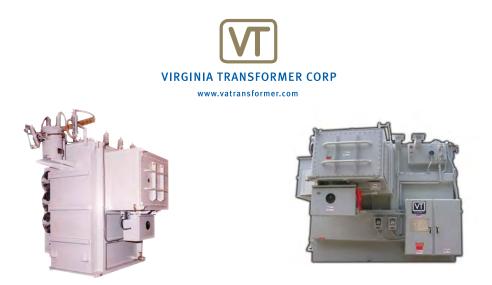
High frequency transients inside transformer at the lighting impulse, Dielectric margin of insulation, Thermal profile of winding and hot spot. The company is an exclusive distributer in N. America of DGA analyzer manufactured by MTE, Germany

Booth 26

Booth 50

Booths 38, 39

Booth 14



Virginia Transformers manufactures Power Transformers,







and we repair them too!!!



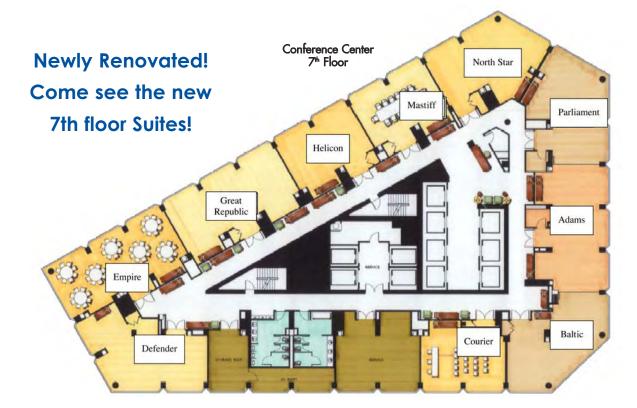


" Visit us at Booth 25"

# Hospitality Suites at the 2007 International Conference of Doble Clients

In addition to the Industry Expo Conference attendees should take advantage of the extensive schedule of Hospitality Suites open in the evenings after the Expo closes. Hospitality Suites offer a relaxed networking opportunity, and many have wonderful food and beverages offered!

Hospitality Suites are located on the 7th, 21st, 31st and 36th floors. See below for a schedule of companies hosting Suites. Suites open at 7:30 PM on Sunday and 7 PM Monday through Wednesday with one noteworthy exception: **SD Myers will be hosting a Breakfast Suite in Turners Restaurant, 1st floor, on Tuesday, March 27th from 6:30 – 9:30 AM.** SD Myers invites all interested Conference delegates to come to their breakfast!



Hospitality Suite Schedule as of March 9, 2007	Sunday, March 25	Monday, March 26	Tuesday, March 27	Wednesday, March 28
Great Republic		Uptime Solutions	Uptime Solutions	Uptime Solutions
Helicon	AREVA	AREVA	Kelman	
Defender		Petro Canada	Petro Canada	
Courier	E Manufacturing	E Manufacturing	E Manufacturing	
North Star		SouthWest Electric	SouthWest Electric	
Parliament		ABB	ADD	
Adams		ADD	ABB	
Baltic		PCORE	PCORE	
Presidential		GE	GE	Reinhausen
Imperial			Nynas	Nynas
Ambassadors				
Governor		Waukesha	Waukesha	
Senator			Velcon	Velcon
Turners Restaurant			SD Meyers (breakfast)	



# 2007 Hospitality Suite Holder Company Descriptions

### **ABB US**

1128 Cavalier Drive Alamo, TN 38001 USA 314-679-4722 Fax: 314-679-4595 Randy Williams randy.williams@us.abb.com www.abb.com

ABB power technology offerings serve industrials and utilities with a broad range of services and solutions for power transmission and distribution with products such as transformers, switchgear, breakers, capacitors and cables, as well as high- and medium-voltage applications.

### Areva T&D

One Power Lane Charleroi, PA 15022 USA 1-724-483-7891 Fax: 724-483-7771 Mark Hammer mark.hammer@areva-td.com www.areva-td.com

AREVA T&D supplies high voltage electrical substation equipment worldwide including a full compliment of power circuit breakers, disconnect switches, and gas insulated switchgear. AREVA T&D also has a complete line of instrument transformers and associated products from 15 kV to 765 kV, including current transformers, voltage transformers, combined metering units, power voltage transformers, line traps, line tuners, and air-core reactors and large power transformers from eight manufacturing facilities worldwide. Transformer capacities range to 800 kV and from 50 MVA to > 1000 MVA and include auto transformers, GSU, step down and shunt reactors. AREVA T&D's North America Service organization provides a comprehensive range of support services for AREVA T&D's equipment meeting all industry requirements.

### **E** Manufacturing

7275 Industrial Park Boulevard Mentor, OH 44060 USA 440-951-0900 Fax: 440-951-0965 Chris Francis chris@emanufacturing.com

Emanufacturing is an innovative manufacturer of circuit breaker parts, tap changer parts, disconnect switches, and other power transmission components.

### **GE Energy**

4200 Wildwood Pkwy Atlanta GA 30339 678.844.6551 Sherry Odom sherry.odom@ge.com

### www.ge-energy.com/industrial solutions

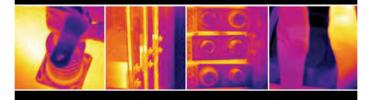
GE Energy offers the expertise and service capabilities you need to keep your equipment in peak operating condition. From power system design to remote monitoring to remanufacture to repairs, we have the know-how and experience you can rely on to help ensure the smooth and efficient operation of your transformers, substations, motors, switchgear, drives and other power related equipment. Contact your GE Energy sales representative today and find out how we can help you with your winning performance. Visit us on the web at www.ge-energy.com/industrial solutions.

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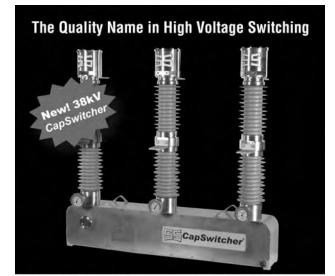


# 2007 Hospitality Suite Holder Company Descriptions

### High Voltage Supply

(a division of Waukesha Electric Systems, Inc.) 9011 Governors Row Dallas, TX 75247-3709 USA 214-637-4434 800-338-5526 Fax: 214-637-1157 Fernando Lujan HVSinfo@waukesha.spx.com www.HighVoltageSupply.com

A leading manufacturer of transformer, LTC and breaker components including a line of Transformer Health Products<sup>TM</sup>. Valued supplier of LTC services including maintenance training, failure analysis reporting and complete overhauls. In addition, HVS has built a strong reputation as an industry leader in reverseengineering and design enhancement.



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### Kelman

4147 N. Ravenswood Avenue Chicago, IL 60613 USA 773-944-0693 Fax: 773-944-0690 Ronald Weir rweir@kelman-usa.com www.kelman-usa.com

Provide innovative solutions for the electrical power industry. Kelman's field proven DGA equipment represents the next generation in portable and continuous on-line applications. Kelman's modern measurement technique for DGA requires no regular calibration or maintenance, no consumables and is ideal for field use. The portable TRANSPORT X unit has established itself as the world market leader in portable DGA and moisture measurement. TRANSFIX is our flagship 8 gas plus moisture monitor for continuous monitoring of critical assets. TAPTRANS allows comprehensive monitoring of the Main Tank and LTC in one compact unit. The lower cost 3 gas plus moisture MINITRANS monitor also available.

All DGA equipment supplied with the powerful PERCEPTION software for transformer diagnostics. The KELMAN SERVICES group provides condition assessment and training from world renowned experts in transformer diagnostics. PROFILE P2 Circuit Breaker Analyzer provides vital "first trip" information for on-line testing. 3 phase "Pole Spread" measurement available.

### Nynas USA Inc

1800 West Loop South, Suite 1150 Houston, TX 77027 USA 713-819-2067 Fax: 713-586-3845 Jeremy Kriska jekr@nynas.com

### www.nynas.com/naphthenics

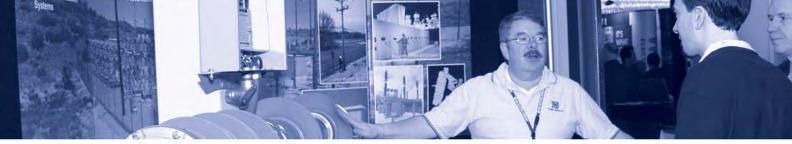
TRANSFORMER OILS - Nynas is the largest global producer of mineral-based Transformer Oils, with several production sites around the world. US operations supported by production at Three Rivers, TX. Oils are stored in Houston, TX, Long Beach, CA, and Montreal, QC. Nynas manufactures Type I, Type II, Arctic, and High Grade Transformer Oils.

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### PCORE Electric Company, Inc.

135 Gilbert Street LeRoy, NY 14482 USA 585-768-1255 Fax: 585-768-1212 Eric Hildreth ehildreth@pcoreelectric.com www.pcoreelectric.com

PCORE is North America's only company 100% focused on the manufacturing of capacitance-graded bushings, and related components, for transformers and OCBs in the ANSI and CSA marketplace. PCORE offers a wide range of products including 15kV-69kV PRC® Bushings, 25kV-500kV POC® Bushings, and 25kV GSU Bushings. PCORE's time and cost-saving products include the PCORE® Test Terminal, Bushing Repair Service and the patented Quick Link Bushing™ Let us prove to you that we have "The Power To Serve".



# 2007 Hospitality Suite Holder Company Descriptions

### **Uptime Solutions**

6 Dorset Place Durham NC 27713 USA 919-544-8191 George Forrest

gforrest@uptime-solutions.com

Uptime Hospitality Suite Participants:

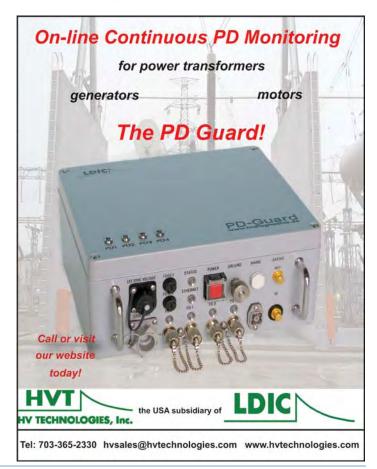
The seven companies participating in the UPTIME SOLUTIONS Doble Hospitality Suite for 2007 provide products and services that are synergistic to complete substation monitoring, testing and maintenance solutions:

Cooper Power/Cannon Technologies provides a complete substation integration capability by communicating with existing or new IEDs using wired or wireless solutions to deliver data to a consolidated Yukon data base that delivers useable information to the desktop accessible through a web browser interface.

Digital Inspections' Cascade CMMS consolidates and integrates data from multiple inputs including on-line monitoring data, field inspections, and third party applications to offer one location to access all relevant information for the maintenance and health of substation equipment.

Delta X Research's Transformer Oil Analyst new version TOA4 is the state of the art method for delivering a software application to the desktop through a web browser.

Enoserv produces PowerBase a substation settings management system that stores, tracks & shares relay data from testing software, RTS an automated universal relay testing software and Vector a satellite-synchronized, multi-state, end-to-end relay testing software.



### Petro-Canada

2310 Lakeshore Road West Mississauga, Ontario, L5J 1K2 Canada 800-299-4996 Fax: 877-352-8916 Don McEachern, Account Manager <u>mceacher@petro-canada.ca</u>

### www.petro-canada.ca

Petro-Canada's Luminol Transformer Fluids represent a breakthrough in electrical insulating fluid technology. They offer transformer users of all sizes an insulating fluid which is free of corrosive sulphur. Luminol passes all current corrosive sulphur tests without the use of passivators.

### Reinhausen

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Reinhausen offers a Maintenance-Free long-range vision as regards the accessories on a Power Transformer. This includes On-Load Tap Changers, Dehydrating Breathers, Off Circuit Tap Changers, Voltage Control, as well as Oil Level and Temperature Instrumentation.

### S.D. Myers

180 South Avenue Tallmadge OH 44278 USA 330-630-7000 Becky Compton becky.compton@sdmyers.com www.sdmyers.com

S.D. Meyers Transformer Consultants provide analytical, training, and international field service in order to extend the relaible life of customers' substation equipment and to reduce their PCB liability.

### SouthWest Electric

PO Box 82639 Oklahoma City, OK 73148 USA 405-736-8616 Bruce Forsyth bruce.forsyth@swelectric.com www.swelectric.com

Since its founding in 1945, Southwest Electric has become one of the foremost re-manufacturing, manufacturing, and service companies for the electical equipment industry in the United States, focusing on medium class power transformers, electric motors, rotating equipment, and metal clad switchgear for the utility and industrial markets as well as specialty transformers for the oil field pump industry.





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# 2007 Hospitality Suite Holder Company Descriptions

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Physical Acoustics Corporation (PAC) designs and manufactures acoustic emission sensors and acoustic emission measurement instruments Weschler manufactures measuring, display, control and protection instrumentation for utility and process control applications. Transformer & LTC Temperature Monitors, Transformer Advantage

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1210 Garden of the Gods Road Colorado Springs, CO 80907 USA 719-531-5855 Fax: 719-531-5690 Linda Oppelt <u>vfsales@velcon.com</u> <u>www.velcon.com</u> Turn oil handling into art with Velcon! Our fixed,

portable, & mobile filtration & storage systems combine versatility, simplicity, and quality to purify insulating oil using advanced Superdri® cartridge technology. Velcon's load tap changer filter systems, oil filter trailers, and on-line transformer drying systems outperform the rest.

### Waukesha Electric Systems, Inc.

400 S. Prairie Avenue Waukesha WI 53186-5969 USA 262-547-0121 800-835-2732 Fax: 262-521-0196 David Harris Info@waukesha.spx.com

www.WaukeshaElectric.com

Largest U.S. manufacturer of power transformers (in the range of 10–200 MVA, 345kV) and valued supplier of complete transformer service solutions. Our components division, High Voltage Supply, offers transformer, LTC and breaker components including a line of Transformer Health Products™ as well as training and reverse-engineering capabilities

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# **Product** Showcases

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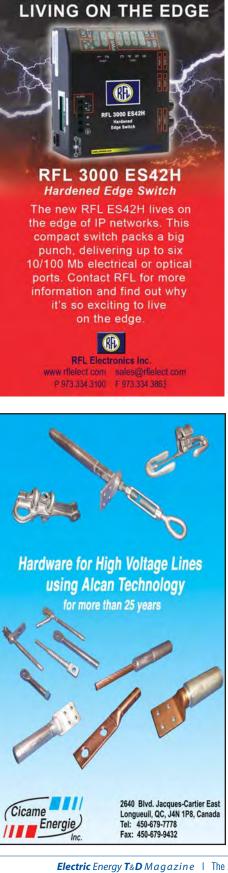
Manage and Prevent Hazardous Material Spills with Agent-X Hydrocarbon Flow Filters



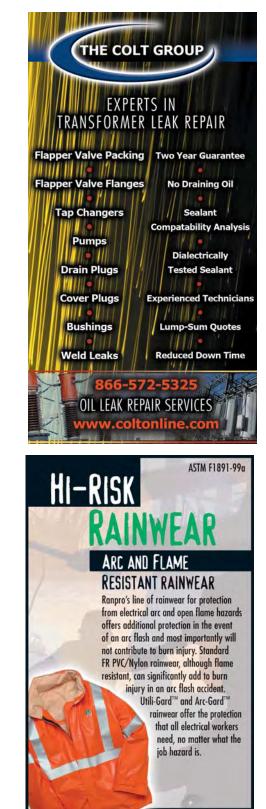
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- Accurate remote position indication
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UVR-1 Retro-fits with a Rail & Harness, quick changeout KIT for all common brand Voltage Regulators, INTO their existing cabinets. The Scrolling Control, and Plastic Clad Operation and set-up Menu chart, provides users complete A-Z installation Parameters "at a Glance." ALSO, USC-1 Universal (Regulator) SIMPLE Control without communication, UVR-1 LTC- For all brands Load Tap Changer Transformers.

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# Advertisers Index

### Company

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### Web Site

(SO 9001)

Cannon Technologies \_\_\_\_\_\_p.09 Southern States \_\_\_\_\_\_\_p.24 The Von Corporation \_\_\_\_\_\_\_p.26 Zensol Automation Inc. p.17

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