

WEEC DAILY NEWS

Wednesday, September 13, 2006

Oser Communications Group

Washington D.C.

NATURE'S LIGHTING OFFERS DAYLIGHTING OPTIONS TO LOWER PEAK PERIOD DEMAND CHARGES

The Objective: Saving kilowatts, not kilowatt-hours, from 2 p.m. – 4 p.m.
Reducing demand for two hours almost every day can mean hefty savings in electricity costs for many facilities.

"Electricity rates typically are highest between 2 p.m. and 4 p.m., especially during hot summer months," says Michael Basch, Chief Executive Officer of Nature's Lighting, a daylighting systems manufacturer.

It's during this two-hour *peak period* that facility managers can help reign in electricity costs with a rifle shot lighting



strategy that targets saving kilowatts, rather than just kilowatt-hours. It's a meaningful difference.

Facility managers can zero in on lighting technologies that help control electricity costs as the price of energy sets new

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INTEGRATING RENEWABLE ENERGY TECHNOLOGIES INTO EXISTING COMMERCIAL BUILDINGS

Wayne Pfisterer, *President of Pfister Energy*, gives an overview of the company and explains their renewable energy solutions.

WDN: Tell our readers a little bit about your company.

WP: Pfister Energy markets and engineers a variety of building-integrated renewable energy technologies designed for commercial businesses. These technologies include multiple solar energy products, also called photo-voltaics or PV, exterior solar lighting,

daylighting, wind turbines, green roofing and cogeneration. In addition to these individual technologies, Pfister Energy evaluates and retrofits building envelopes.

WDN: What makes your company unique?



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THINK GREEN, SAVE GREEN: USING INSPIRE™ SOLAR TECHNOLOGY FROM ATAS INTERNATIONAL

As green building practices become more important not only for environmental reasons, but also for cost savings and tax credits, new products supporting this philosophy are popping up everywhere. Once a commitment is made to research the available products, one product rises above the rest, the ATAS InSpire™ wall, which has been in use for the last ten years. Transpired solar collection is a proven technology with many successful installations across the globe.

ATAS International, Inc., offers the InSpire wall system, a transpired solar

collector that utilizes precision perforated panels that are mounted several inches from the building's outer wall. This innovative wall system, manufactured from .032" aluminum or .027" zinc, uses the sun to preheat air at the surface of the panel. The air is *transpired* (drawn through the perforations) into the wall cavity via ventilation fans, which also draw the warmer air up the wall and into the building's interior through conventional ductwork. Air space between the

Continued on Page 8

ELYSATOR: THE IDEAL NON-CHEMICAL CORROSION PREVENTION ALTERNATIVE

In March 2003 International Water Treatment North America LLC (IWTNA) introduced Elysator to North America. Elysator is a non-chemical device (NCD) used in closed loop freshwater systems such as boilers, heating and chilling loops, jacket cooling water for engines and generators. It can also be used in cooling towers in combination with inline UV sterilizers.

Elysator is used in place of chemical treatment for corrosion protection in the above mentioned loops. Not only will Elysator protect against corrosion, it will lower conductivity, stop scaling, remove

old scaling and balance the pH to the proper levels for these systems.

The Elysator was developed in Switzerland during the 1960's for the purpose of softening water in radiant heat loops and potable water. Since that time it has been engineered to replace the chemical treatment that was commonly used in freshwater closed loop systems. More than 50,000 Elysator's are now in use worldwide in systems as diverse as dairy farms, nuclear power plants, hospi-

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ARE YOU LEADING THE WAY?

Solar Daylighting Building Envelope Wind Turbines

Solar Lighting Green Roofing Cogeneration Energy Efficiency Audits



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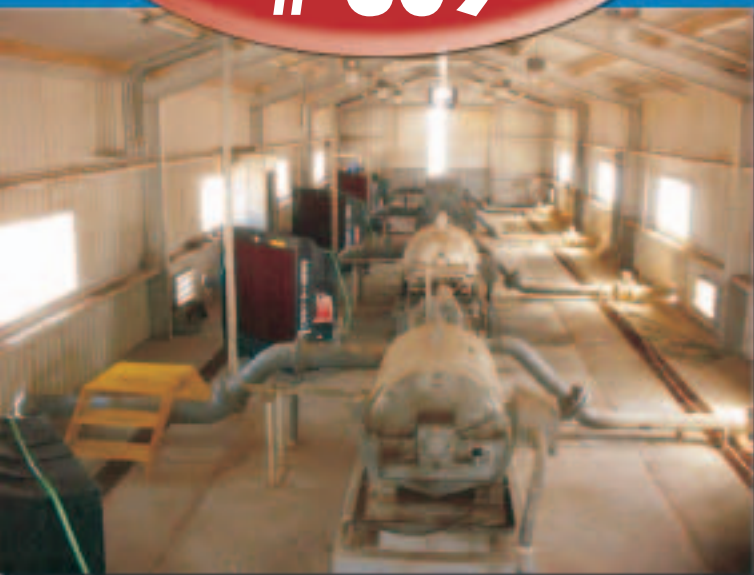
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**VISIT
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609**



* "Motors & Drives," 10/15/2003



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Radiant tube heating from Ambi-Rad offers unprecedented heat performance and fuel efficiency. Fueled by natural gas, oil or LPG, it is effective in a wide range of applications where even heat coverage, rapid warm-up, quick heat recovery and flexibility of operation are required—

sports halls, aircraft hangars, warehouses, automotive workshops, transport maintenance sheds and factories, in particular.

Typically, Ambi-Rad radiant heating deployed to replace an older, inefficient system will reduce overall running costs by 25 to 70 percent. In one military aircraft hangar application, energy costs were immediately reduced by 64 percent when a boiler and high temperature hot water system was replaced with natural gas-fired radiant tubes from Ambi-Rad.

Radiant tube heating works by

emitting infrared rays that warm only people and objects in their path. No energy is wasted in heating the vast volume of air in a large space building. Warmth is concentrated at a low level, where it is most needed. Heat-up is rapid—warmth is felt by people in the building within minutes of switch-on on cold mornings, and no fuel is wasted bringing the air to a comfortable temperature. By contrast, some conventional convection systems may take up to an hour to reach comfort conditions.

When external doorways are opened—periodically or for long stretches of time—an Ambi-Rad radiant system continues to warm people working in the building. Once the doors are shut again, comfort

Continued on Page 8

NOREN PRODUCTS OFFERS ADVANCED OVERHEATING SOLUTIONS FOR ELECTRONICS ENCLOSURES

Modern electronics continue to be placed in denser packaging and smaller enclosures. Consequently, electronics are being designed to handle higher temperatures. However, moisture and airborne dust, oil, dirt and other contaminants can damage sensitive electronic equipment and sealed enclosures designed to protect the electronics can cause another problem—overheating,

which can result in reliability problems and unnecessary downtime.

The NOREN Compact Cabinet Cooler, from Noren Products Incorporated, is a revolutionary air-to-air heat exchanger, solving the above problems by removing only the heat inside the enclosure, recalculating the air inside at the same time and maintaining the enclosure's protective seal

against harmful contaminants.

Air conditioners and other below-ambient type coolers, such as compressed air coolers, are not necessary for most enclosure cooling applications. They are usually very expensive and have many maintenance issues associated with them. The Compact Cabinet Coolers, built with Noren's exclusive heat pipe technology, are virtually maintenance free and are 1/10 of the cost to use.

A heat pipe consists of a sealed aluminum or copper container or a tube with inner surfaces that have a capillary wick-

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WEEC DAILY NEWS

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The function of the Elysator is based on the anodic/cathodic principle i.e. letting a less noble metal (magnesium) be sacrificed (corroded) instead of the system itself, related to galvanic series / elements. During the process the oxygen in the water will be absorbed creating H₂O and magnesium hydroxide. When installed the Elysator, the entire system will be protected from corrosion. Even aluminium and aluminium alloys are protected.

Elysator Water Treatment Without Chemicals

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No Chemicals No Disposal No Dosing No Chemical Storage Minimal Testing Minimal Maintenance No Hazardous Waste	Corrosion Protection Prevents Scaling Removes Old Scaling Controls Ph Lowers Conductivity Removes Minerals Removes Heavy Metals Removes Pesticides Water Softening	Boilers Heating Chilling Cooling Towers Potable Water Land Based Marine

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WELCOME TO THE SHOW

WEEC 2006: Energy Policy Act, Improving Facilities, Sustainable Buildings and Federal Energy Management

The World Energy Engineering Congress, now in its 29th year, is the industry's key meeting to gain access to the latest technologies, hear from a cross-section of industry leaders and network with fellow professionals. This year's show is being held during at a critical time. With the recent rise in oil prices and energy costs, "Energy Managers and VP's of Operations must implement pro-active game plans and strategies to stay competitive in a global marketplace. The recent Energy Policy Act offers tax incentives and guidelines for both the public and private sector to help them achieve greater energy savings, retrofit existing facilities, and create innovative energy management leadership initiatives" according to Albert Thumann, Executive Director of the Association of Energy Engineers.

WEEC Opening Conference Session: Leadership in Energy Management and EAct.

Both attendees and exhibitors are invited to send a representative to this year's kick-off opening session. Topics and speakers scheduled to appear: *Senate Energy Committee Update*, **Mel Martinez**, U.S. Senator, Florida, *New Directions in the Energy Policy*, **Byron L. Dorgan**, U.S. Senator, North Dakota, *Implementing the Energy Policy Act*, **Get W. Moy, Ph.D.**, P.E., D.Sc., Director of the Utilities and Energy Directorate, Office of the Deputy Under Secretary of Defense, Installation & Environment, *Leadership Through ENERGY STAR*, **Kathleen Hogan, Ph.D.**, Director, Climate Protection Division, Environmental Protection Agency, *Revitalizing the Energy Management Industry*, **Shirley J. Hansen, Ph.D.**, C.M.V.P., C.E.O., Hansen Associates, Inc.

WEEC 2006: More training, workshops, tours, & networking that ever before.

Attendees to WEEC 2006 are invited to take part in a full line-up of activities to maximize their show experience. Here are just a few of the highlights:

On Wednesday, September 13 from 7:45– 8:45 a.m., Leviton

Lighting Management Systems is sponsoring a New Technologies Breakfast. Here is your chance to hear presentations from various exhibitors on new technologies and products introduced at WEEC 2006. A dynamic line-up of Free Exhibit Hall Workshops presentations and Poster Sessions presented during through out the show in the exhibit hall (refer to onsite schedule located next to workshop presentation area 1 & 2 for exact times, speakers and presentation titles). Recently added free workshop: CHP for Federal Facilities, Friday, September 15, 2006, 8:00a.m. – 12:00 noon.

Expo Open:

Wednesday, September 13, 2006: 10:00a.m.—6:00p.m.

Thursday, September 14, 2006: 10:00a.m.—4:00p.m.

Facility Tours Showcase Real-world Applications

Attendees can participate in a variety of tours (tour space is limited and attendees who have pre-registered have priority. Check with the tour counter for current availability):

Wednesday, September 13, 2006: 11:30a.m. – 12:30p.m.:

Washington Convention Center Central Plant Tour

Wednesday, September 13, 2006: 2:00p.m. – 4:00p.m.: **U.S. GSA's Heating Operation and Transmission District and Central Heating and Refrigeration Plant**

Thursday, September 14, 2006: 11:30a.m. – 2:30p.m.: **CHP tour: A Closer Look at the Food and Drug Administrations Federal Research Center**

Silent Auction to Benefit Education

On Wednesday, the Silent Auction and exhibit hall networking will be held in the exhibit hall starting at 4:30p.m. The foundation of AEE sponsors the silent auction to benefit education. Since its inception, \$418,000 in scholarships has been awarded to engineering students who enroll in energy related courses. AEE would like to thank Siemens for its generous donation directly to the scholarship fund and for those professionals who have made donations for this worthy cause. After the close of the WEEC expo on Wednesday, 6:00 p.m., conference attendees and exhibitors are invited to the networking reception sponsored by Siemens. After the reception, full conference attendees and professionals who have pre-purchased banquet dinner tickets will attend the annual AEE Awards Banquet. Awards are given to individuals and to selected projects that display excellence in their category.

AEE serving the industry

Since 1997, AEE has served the industry and been the source for information on the dynamic fields of energy efficiency, impact of deregulation, facilities management and retrofits, distributed generation, renewable technologies, and green and sustainable design initiatives. With a full array of information outreach pro-

grams, from technical seminars, conferences, books, to critical buyer/seller networking trade shows, job listings, online technical journals and certification programs, AEE offers a full spectrum of information resource tools. AEE's roster of corporate members is a veritable "who's who" from the commercial, industrial, institutional, governmental, energy services, and utility sectors of the global marketplace.

Join AEE and Enhance Your Profession

If you are not already an AEE member, we invite you to join at the WEEC. Your AEE membership provides numerous benefits which include Energy Engineering journal, Strategic Planning for Energy & the Environment Journal, Energy & Power Management Magazine, member discounts to seminars and conferences, as well as affinity programs which save you money from leading providers UPS, GEICO, MBNA and more. Stop by the AEE Membership booth for more information.

Thank you sponsors and volunteers

On behalf of the entire AEE organization and staff, we would like to thank all of the show's sponsors, speakers, attendees, and volunteers who have put in the time and effort to create this dynamic venue. It is your help and dedication that helps make the show grown as a meeting place for the exchanging ideas, finding solutions to corporate operational challenges and discovering new ways of doing business. Once again, thank you for your support.

FREE POSTER SESSIONS

WEEC 2006: Energy Policy Act, Improving Facilities, Sustainable Buildings and Federal Energy Management

Complementing the WEEC conference, exposition and related events, this year's poster sessions will provide an opportunity for authors, session presenters, conference attendees, and exhibit hall visitors to interact, and give and receive ideas on a one-on-one informal basis. The program enables presenters to provide their data and receive audience feedback. Posters will be displayed in the exhibit hall during expo hours on **Wednesday, September 13, between 10:00 a.m. to 6:00 p.m.** and on **Thursday, September 14, between 10:00 a.m. to 4:00 p.m.** Presenters will be available for Q&A on **Wednesday between 11:30 a.m. - 12:30 p.m. and from 4:30 p.m. - 5:30 p.m.,** and on **Thursday between 11:00 a.m. - 12:00 noon and from 1:30 - 2:30 p.m.**

Poster Session 1 Wednesday

Strategic Planning in Energy Sector

Zsolt Furray, Postgraduate Student
Budapest University of Technology and Economics

Risk Management Strategies Through Negotiating Natural Gas Supply Contracts

Anne McGregor, CEP, President
MC2 Consultants

Energy Simulation Methods for the Performance Contracting Industry

Francisco L. Valentine, PE, CEM,
CBCP, GBE, Principal
Premier Energy Services, LLC

Turning Capital Projects into Energy Projects

Rafael Negron, C.E.M., B.E.P.,
Principal
Norgen Consulting Group, Inc.

Electric Energy Contracting: Price Strategies

Rafael C. Herzberg, PE, Managing Director
Interact Ltd Energy Consulting

Lighting Efficiency

John F. Veal Jr., C.L.E.P., C.L.M.C.,
Project Coordinator, Demand Side
BlueStar Energy Services

Utilizing Integrated Energy Information and Control Systems (EICS) to Exceed the Goals of EPAAct2005

Richard M. Rogan, PE, C.E.M.,
Performance Contracting Engineer
Honeywell International

Entrepreneurs and Deregulation

Andre Lambine, PhD Student
Norwegian University of Science and Technology

Advanced ESP Modeling in Air Pollution Control

Balint Nemeth, Ph.D. Student

Budapest University of Technology and Economics

Improving Efficiency & Performance by Analyzing the Energy Utilization Index

Yousef Abouzelof, CEM, MS,
Director of Facilities & Energy Management
Zions Securities Corporation

Poster Session 2 Thursday

Ammonia-and-Water-Based Thermal Conversion Technology

Lyle Ball, VP
Amp Resources

Energy Management Control Systems and Employment of Fuzzy-Rule Based Control Algorithms

M.M. Ardehali, Ph.D., P.E.,
Associate Professor, Energy Systems Laboratory

Amirkabir University of Technology

Using Informational Dashboards to Conduct Demand Response

Chris Greenwell, Director of Business Development
Tridium

Finally, A Light Meter That Senses What My Eye Senses!

Lorence Leetzow, President
Magnaray International

Load Flow Analysis of Arlegui Building Using the EDSA Software

Ricardo P. Torio, Electrical Engineer
Department Chair
Technological Institute of the Philippines-Manila

Steam and Hot Water System Optimization: Food Plant Case Study

Nevena H. Iordanova, C.E.M.,
Senior Utility Systems Engineer
Armstrong Services

IAER HONORS EARTH PROTECTION SERVICES FOR MULTI-FACILITY RECYCLERS CERTIFICATION

Earth Protection Services, Inc., (EPSI) has been recognized by the International Association of Electronics Recyclers (IAER) as the first electronics recycling company to achieve corporate-wide,

multiple-facility certification for a common management system adhering to the International Association of Electronics Recyclers Certification Standard. EPSI facilities are located in Oregon, California,

Arizona, Texas, South Carolina, Pennsylvania and Wyoming.

IAER Certified Recyclers commit to maintain and audit specific management systems including Quality Management System (ISO 9001 or equivalent), Environmental Management Systems (ISO 14001 or equivalent) and Health and Safety Management System (OSHAS 18001) or equivalent. EPSI has documented management and business practices, financial controls, insurance coverage and security

systems/controls and must meet specific certification requirements regarding key elements of operation, qualification and training of personnel as well as suitability of equipment and facilities.

Founded in 1996, EPSI is a nationwide provider of recycling and proper disposition services for electronic products which contain hazardous waste components such as mercury lamps, PCB lamp

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FEDERAL EMERGENCY MANAGEMENT WORKSHOP SESSIONS ADDED TO WEEC SCHEDULE

The Association of Energy Engineers (AEE) has added a series of focused FEMWorks™ Conference Workshop Sessions to the 2006 WEEC in Washington, DC.

According to Albert Thumann, Executive Director of AEE, "The Federal Government is faced with a new set of challenges to meet revised energy effi-

ciency and water efficiency standards. States need to explore grants available to them to upgrade public buildings for greater energy efficiency. Energy Saving Performance Contracts are reauthorized which enable ESCO's to work with end users towards viable, measured and verified, facility saving strategies. FEMWorks helps government energy

and facilities managers achieve higher standards of efficiency and excel in their leadership and performance goals."

In addition to the FEMWorks workshops, the Department of Defense will hold its annual Energy Managers Meeting at the conference.

Each year, DoD brings together 300 to 400 energy managers, facility managers, procurement specialists from each of its services to hold focused agency workshops and technical sessions. For 2006, DoD is hosting workshops, the DoD All-Hands meetings and DoD energy and facilities managers will attend the multi-track conference sessions within the World

Energy Engineering Congress and the FEMWorks™ program. DoD is the Nation's single largest energy user with over \$8 Billion spent. The DoD Workshops give agencies the opportunity to meet one-on-one to share success stories, performance contracting issues, measurement and verification tactics, as well as the opportunity to implement commodity based savings programs, renewable energy technologies, and advance systems to improve existing systems and upgrade DoD operations and facilities.

For more information about these workshops, visit the registration desk during the show.

FREE WORKSHOPS

HALL D

This complimentary exhibit hall activity has been designed to enhance your learning and allow for an interactive experience for all expo attendees and presenters. Expo-only visitors, conference attendees, seminar delegates and any other visitors to the show floor can participate in these sessions for FREE.

You can attend any of the following workshop presentations while at the WEEC expo:

Wednesday, Sept. 13

AREA 1

10:30-10:50a.m.

Daylight Harvesting Controls
David Weigand, LC
Leviton Manufacturing Company

11:00-11:20a.m.

80 PLUS@: Providing Market Incentives to Promote Efficient Computers and Servers

Kent Dunn, Sr. Program Manager
Ecos Consulting

11:30-11:50a.m.

Energy Savings: Innovative Strategies & Cost-Effective Energy Solutions
ConEdison Solutions

1:00-1:20p.m.

Retrofitting Existing Cooling Systems with Advanced Compressor Technology
Bruce Manning, Chief Engineer, Operating Engineers Trust Fund
Danfoss Turboco

1:30-1:50p.m.

Saving \$Billions in Energy From Everyday Technologies Often Overlooked
John McLaughlin, VP of Sales
USA Technologies

2:00-2:20p.m.

How Austin Energy is Saving 63% in Street Lighting Energy Costs
Larry Leetzow, President World Institute of Lighting and Development Corporation
Magnaray International

2:30-2:50p.m.

Energy Conservation Methods Through Ultrasound
Douglas Waetjen, International Sales Manager
UE Systems, Inc.

3:00-3:20p.m.

Slashing your Lighting Energy Costs: Quick Wins

and Mistakes to Avoid
Gregory Barsh, Principal
Tristar Lighting

3:30-3:50p.m.

Energy Savings with Leading-Edge Energy Management Solutions
Bob Scammell, VP of Sales
Smart Systems International

AREA 2

10:30 - 10:50a.m.

Performance Monitoring of Green Technologies, Including Renewable Energy
A.J. Rossman, Chief Technology Officer (CTO)
Draker Solar Design

11:00-11:20a.m.

Pure, Clean, Safe - The Remarkable and Proven Technology for Eliminating Chemicals in Cooling Water Systems
Vince Resor, Director of Technical Services
Chardon Laboratories

11:30 - 11:50a.m.

Infrared Cameras Raise the Bar on Home and Building Inspection
Howard Vics, President, Building Performance Consulting
FLIR Systems

1:00 - 1:20p.m.

Building Integrated Solar Co-Generation System
Dave Gerwing, President
Menova Energy

1:30 - 1:50p.m.

Benefits of Inverter Technology in HVAC systems
Jason Dempsey, Sales Engineer, LEED Accredited Professional™
Daikin AC (Americas), Inc.

2:00 - 2:20p.m.

Saving Energy, Water and the Environment with Non-Chemical Treatment of Cooling Tower Water

Don Toporowski, P. Eng., VP Sales
EnviroTower, Inc.

2:30 - 2:50p.m.

Metering to Comply with EPACK 05
Jim Lewis, President
Obvius, LLC

3:00 - 3:20p.m.

Cut PC Energy Waste: Save Money & Reduce Global Warming
Dave Harvey, Vice President of Business Development
Verdiem Corporation

3:30 - 3:50p.m.

Vibration Analysis, a Tool for Preventive Maintenance
Ken Currie, L&V Diagnostics, Inc. - LuDeca Sales Rep
LuDeca

Thursday, Sept. 14

AREA 1

10:30-10:50a.m.

EPAct Government Tax Deductions for Energy Saving Lighting
Tom Hunter, Vice President, Fluorescent Group
Lithonia Lighting

11:00-11:20a.m.

Monitoring and Optimizing Efficiency Over Central Plant Operating Life: The New Focus of in Packaged Plant Design
Peter Armstrong, Director of Marketing
TAS Packaged Central Plants

11:30-11:50a.m.

Motion Controlled Bi-Level Fixtures
John Andrews, Sales Manager
Lamar Lighting

1:00-1:20p.m.

Selecting HVAC Products? Learn to Use the Online Directory of Certified Product Performance
Bill Tritsis, ARI Certification

Engineer
Air Conditioning & Refrigeration Institute (ARI)

1:30-1:50p.m.

Modulation: The New Standard for Energy Efficiency
William D. Spencer, Southeast Regional Market Development Manager
Roberts-Gordon, LLC

2:00-2:20p.m.

Energy e-Procurement Strategies
Richard Domaleski, CEO
WorldEnergy Solutions

AREA 2

10:30-10:50a.m.

Industrial Energy Management: Doing More with Less
Jim Plourde, National Business Development Manager
Power Logic, Schneider Electric

11:00-11:20a.m.

Translating Transformer Savings Into Sustainable Education
Philip Ling, VP Technology
PowerSmiths International

11:30-11:50p.m.

Electricity Price Risk Strategies in Today's Volatile Market
Edward P. Wilson, C.E.M.
Business Development Manager
Constellation NewEnergy

1:00-1:20p.m.

How ICFs Can Provide Energy Efficiency, Safety, Security, Durability and Comfort in One Simple Building System
Linda Strobino, LEEP AP
Jeffrey Childres, Regional Sales Manager
American PolySteel

Workshop titles and presenters subject to change. See posted schedule at Workshop Areas 1 & 2 for the most up-to-date speakers and presentations.

OSRAM SYLVANIA, NATION'S OLDEST LIGHT BULB MANUFACTURING PLANT, CELEBRATES CENTENNIAL

OSRAM SYLVANIA is celebrating 100 years as the country's oldest and largest functioning light bulb manufacturer. Its St. Mary's plant, which opened in 1906 as the Novelty Incandescent Lamp Company, now produces two million light bulbs in up to 1,200 different packages each and every day.

"Modern machines and new processes are important, but they're not the key to St. Mary's accomplishments over the years," says Sally Moran, General Manager of the Incandescent Strategic Business Unit. "Key customers, dedicat-

ed leadership, motivated employees, committed suppliers, innovative equipment and a conducive environment have all played a role in our past success, as well as contributed greatly to our future."

Guests for the centennial celebration included Pennsylvania elected officials: Congressman John Peterson, Senator Joseph Scarnati and Representative Dan Surra.

"Being around for 100 years in the same place is quite an accomplishment. It shows OSRAM SYLVANIA has been on the ball and, because of their ingenuity,

have stayed on the forefront of innovation," Peterson says. "Congratulations OSRAM SYLVANIA and thank you for your commitment to staying viable, and for keeping jobs in America so that we can continue to compete in a global community."

The company changed hands many times before becoming the presently known OSRAM SYLVANIA, Inc., but one thing has always stayed consistent: the hard work and dedication of thousands of employees over the past century as policies and traditions have grown and developed.

As the plant was ready to expand in 1955, company officials decided to build a new 160,000 square foot facility within St. Mary's because of the quality and experience of the local workforce. At the time, with 300 employees, the new plant was considered the most technically advanced of its kind, as it produced several hundred

thousand incandescent lamps a day.

Since then, the facility has expanded three times its original size to the current 480,000 square feet, and has just completed a major modernization and consolidation of its equipment to maximize output. Today half-century old and innovative machinery and even robots work side by side. Presently, 400 people work three shifts a day, seven days a week and manufacture more than 600 million light bulbs annually.

About OSRAM SYLVANIA

OSRAM SYLVANIA, a wholly-owned subsidiary of Siemens AG, sells products for homes, businesses and vehicles primarily under the SYLVANIA brand name, and also under the OSRAM brand.

For more information, visit www.sylvania.com.

ATAS International (Con't. from p. 1)

walls also acts as an insulator.

The panels are coated with a durable KYNAR 500® or HYLAR 5000® finish in a variety of colors that absorb heat from the sun. The premium finish is available in 16 standard colors.

InSpire can solve many typical building problems. Heat loss through walls is recaptured by the system. The use of this preheated fresh air system eliminates stratification of the air inside industrial buildings, where hot air rises to the ceiling and is lost through the roof or

drawn out with exhaust fans. This system replaces the air constantly, thus reducing the "Sick Building Syndrome." Also, it provides positive air pressure in the building, reducing drafts and potential injuries from slamming doors.

InSpire wall uses renewable energy to preheat fresh ventilation air, providing improved indoor air quality while reducing heating energy consumption and providing long-term value and energy cost savings. InSpire wall is environmentally friendly, using clean, natural energy, thus lowering the need for fossil fuels.

The InSpire Wall panels provide

both solar heat and the durability and architectural style of metal with the benefit of a lower cost than most other solar energy options. The result is improved indoor air quality, free solar heating and a reduction in HVAC costs. The investment in an InSpire wall system is generally returned within three years via tax credits and lower heating fuel costs. A RETScreen™ analysis of a project detailing the costs savings is available.

Well-suited to such projects as schools, industrial buildings, maintenance facilities, hospitals and govern-

ment buildings, InSpire may offer a variety of federal, state and local investment incentives. It also offers the potential for LEED™ credits on buildings striving to achieve recognition by the USGBC or related agencies.

"Transpired collectors provide the most reliable, best performing and lowest cost solar heating for commercial and industrial buildings available on the market today," according to U.S. Department of Energy (DOE/GO-10098-558, 1998).

For more information, visit www.atas.com/inspirewall or stop by booth 514.

International Water Treatment (Con't. from p. 1)

tals, airports, tankers and fishing boats.

The technology behind Elysator is the basic anodic/cathodic principle, sacrificing a less noble metal to save the system. In the case of the Elysator magnesium is being sacrificed. During this process the magnesium anodes remove oxygen from the water creating magnesium hydroxide. This coats the metal surfaces of the treated system protecting them from corrosion. Any scaling in the

system will be softened and removed as small particles. Elysator will remove metals, organic materials and pesticides from the raw water used in these systems.

There are numerous benefits of using Elysator in place of chemicals. When chemicals are eliminated, so is the need for handling and storing toxic material thus reducing the risk of accidents to employees tasked with treating these freshwater closed loop systems. The system will have improved heat transfer as a result of the thorough de-

scaling. This will result directly in lower energy costs. Because the system will circulate only clean pure water our environment will benefit as well.

Elysator is low maintenance, requiring a daily five second blow down and monthly cleaning. Cleaning can be accomplished by one person and takes about an hour depending on the size of the Elysator. Elysator's do not require electricity except in the case of boilers where a circulation pump is needed.

An Elysator is a one time expense

with only the magnesium anodes needing replacement every five to seven years. The replacement cost of the anodes is only 8 percent of the original Elysator price.

If you are interested in eliminating chemicals from the work site, improving the efficiency of your systems and protecting the health of our environment then Elysator is your best choice.

For more information, write to 2607 Bridgeport Way W., Suite 1J, University Place, WA 98466, call 253-566-1438 or visit www.iwtna.com.

Ambi-Rad (Con't. from p. 4)

temperatures are restored almost instantly.

Zoning is a major feature of Ambi-Rad radiant tube heating. Where a facility must be down-sized or activity confined to selected areas of the building, radiant heating can be configured to heat only the part required, as a key energy-saving measure. This is also useful where activity takes place in different parts of the building on a daily basis—such as in an aircraft mainte-

nance hangar. The building may not always be fully utilised, so selected areas can be heated only when required.

Radiant tube heating is available in linear, U-tube, herringbone or continuous configurations. The selection will depend on the type of installation and requirements of the heating system.

For more information about the full range of Ambi-Rad energy efficient radiant tube heaters, call 888-330-4878 or visit www.ambirad.com.



Noren Products (Con't. from p. 4)

ing material. Inside the container is a liquid under its own pressure that enters the pores of the capillary material, wetting all internal surfaces. Applying heat to any point along the surface of the heat pipe causes the liquid at that point to boil and enter a vapor state. This gas, which consequently has a higher pressure, moves inside the sealed container to a colder location where it then condenses. Thus, the gas gives up the latent heat of vaporization and moves the heat from the input to the output end of the heat pipe.

The heat pipe is about 1,000 times more conductive than a copper tube of the same weight, and heat pipes conduct large volumes of thermal energy away from the heat source. The heat pipe design is simple, efficient and has no mechanical parts that can fail.

Noren Compact Cabinet Coolers have many features that offer consistent and reliable protection against harsh environmental elements reducing downtime and increasing productivity. Additional benefits include:

- Efficiency and cost effectiveness.

- No condensation inside the enclosure.
- Compact and lightweight.

- Easy to install or retrofit on top, side, door or back or enclosure.

- Virtually maintenance free, as the only moving parts are small fans.

- Reduces hot spots inside the cabinet because air is circulating inside.

- Many additional features, such as corrosive resistant coating, NEMA 4,

4X, UL/cUL so the units can be located in wet, hazardous locations or corrosive environments.

- Air-to-water units available for below ambient cooling.

The Noren Compact Cabinet Coolers have been in the field for more than 30 years without any field failures. Their units have proven the test of time and are appreciated by all who have used them.

For more information, visit www.norenproducts.com.

Nature's Lighting (Con't. from p. 1)

records practically every week. Saving energy is becoming more critical to commercial building owners and management companies squeezed by competitive pressures to limit increases in tenant leasing fees and shrinking margins. They need help finding additional savings opportunities.

One of the most promising technologies is daylighting. It brings ample natural light into a building precisely when it can generate the largest savings—during peak periods.

The SunTracking Daylighting System by Nature's Lighting, for example, brings so much natural light indoors that electric lighting can be turned off for up to 12 hours a day, without the heat gain typically associated with passive skylights. The savings for the two-hour peak period is especially significant.

By constraining demand during peak periods, daylighting systems help reduce electricity costs in two ways. First, they reduce a building's actual energy charges, or its kilowatt-hour (kWh) charges, which is how much energy is consumed over time. Energy efficient lighting generally is benchmarked by

how many kWh it saves.

Second, they can help keep a building's monthly demand charge lower. The demand charge is the price billed by the utility for the highest total demand in kilowatts, not kilowatt-hours, during any 15- to 30-minute period each month, which usually occurs during peak demand, when prices are at a premium.

The demand charge can represent 20 to 40 percent of a building's monthly electric utility bill, so keeping it as low as possible during peak periods can produce a sizable return on investment on the daylighting system.

Since electric lighting can represent about 25 percent of a building's total energy consumption, turning off lights from 2 to 4 p.m. can significantly reduce a building's electric utility bill. Turning off lights also eliminates the waste heat that they generate and the energy that it takes chillers to remove the heat from the building. That can chalk up an additional savings of three to five percent in total energy consumption.

For more information, contact Nature's Lighting at 877-645-2728, visit www.natures-lighting.com or stop by booth 855.

Pfister Energy (Con't. from p. 1)

WP: Pfister Energy specializes in turnkey renewable energy solutions planned to custom fit the building, the budget and the business owner. Our experience with designing, engineering, commissioning and installing renewable projects from start to finish enables us to determine the projects and products best suited for both building and client.

WDN: What do you anticipate to be your greatest challenge in the year ahead?

WP: Integrating renewable energy technologies into commercial and industrial buildings is a proven way to combat rising fuel costs. However, working within the confines of ever-changing and evolving government incentives, and other programs can be challenging. Each state has a different program for different products following different timelines and criteria. In addition, as fuel prices and power demands increase, worldwide product demand has made product procurement for our local customers more challenging.

WDN: Are you introducing any new products?

WP: Of course! Renewable technology improves every day—new products and new technologies increase efficiency and reduce demand. We are excited about Daylighting by SunPort Industries. These

sophisticated "skylights" are engineered to project free natural light into the building in order to reduce, and perhaps eliminate electric lighting during daylight hours. Passive SunPort Daylighting systems replace standard skylights while magnifying and spreading the light evenly and further. Active SunPort Daylighting systems include refracted lamps that ramp up when sunlight is scarce. Both types of products have can offset electrical lighting in warehouse, production and distribution facilities from 50 to 80 percent. In addition, SunPort Daylighting systems eliminate heat gain and loss leaking from ordinary skylights, thus, saving even more energy.

WDN: What products do you see as being hottest this year?

WP: Daylighting and solar energy are popular due to quick financial paybacks and ease of installation. In addition, small, vertical axis, building-integrated wind turbines have become a viable technology for urban areas. Unlike wind farms at sea or on the west coast, these visually unique turbines are energy producing and designed specifically to maximize east coast wind "regime" areas. In addition to saving energy, the modern wind turbine is a visual symbol that publicity-minded customers are adding to their buildings to save energy, reduce their environmental impact and advertise their stewardship.

Earth Protection Services (Con't. from p. 6)

ballasts, computers, monitors, copiers, printers and batteries. The company provides glass-to-glass closed loop recycling of CRT monitors and secure destruction of computer hard drives, ensuring the highest level of environmental and data security legislation compliance for its customers.

Proprietary methods are used to dismantle computer printed circuit boards and recover components such as lead, mercury,

copper, gold, silver, platinum and palladium. Glass from cathode ray tubes is removed, processed and returned to commerce. Plastic is ground into chips and remolded. All recycling is certified via certificates of recycling or destruction.

For more information, write to 10 South 48th Ave., Suite 4, P.O. Box 23820, Phoenix, AZ 85063-3820, call toll free 800-414-0443, email President John M. Chilcott, at recpro@earthpro.com or visit www.earthpro.com.

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Ž Generates light equivalent to 800 watts of fluorescent, or 1,000 watts of metal halide, lighting.

Ž Produces less than half the thermal heat generated by fluorescent light.

Ž Does not draw any line volt-

age, so electricity costs for lighting can drop to zero during the day.

Ž Lasts the life of the roof and requires minimal maintenance.

Call **877-645-2728**, visit www.natures-lighting.com.

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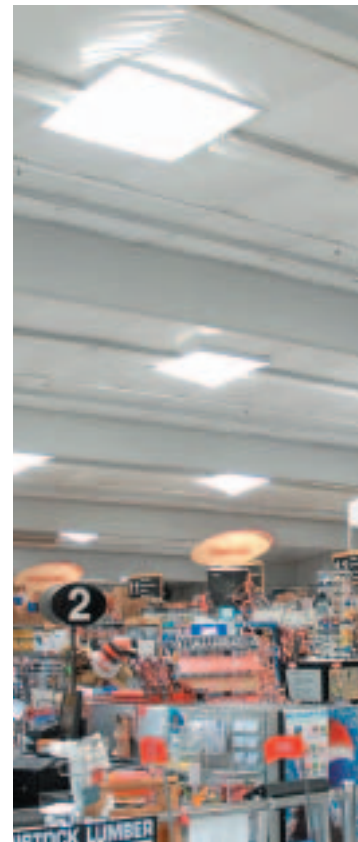
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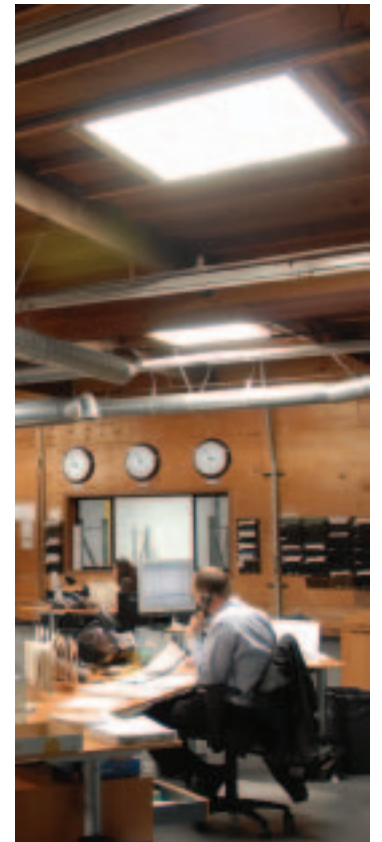
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