



NEWSLETTER

Midwest Cogeneration Association, Inc.

July/August, 2004

Vol. 19, No. 2

EIGHTEENTH ANNUAL POWER CONFERENCE

Thursday, September 23, 2004

**McDonald's University - McDonald's Campus
Oak Brook, Illinois**

The MCA Board of Directors invites you to join us for the 18th Annual Non-Utility Power Conference in Oak Brook, Illinois. We believe our slate of presenters in both tracks of the conference will challenge us with new ideas. There will be ample time allotted to visit with the many cogeneration related exhibitors present. We will end the day with refreshments and a barbecue dinner where you will have the opportunity to network and discuss ideas learned throughout the day.

If you have joined us in the past you know what an exciting conference this is. If you've never joined us, make this the year! The conference, while running in two tracks, begins with everyone attending the opening comments and presentation by our keynote speaker:

*The Honorable Kevin K. Wright
Commissioner and Chair of the Electric Policy Committee
Illinois Commerce Commission*

"Cogeneration and Distributed Generation in a Post-2006 Market"

Illinois laws and regulations governing the state's electric industry are expected to change as of January, 2007. Commissioner Wright's insights into the potential impact of these changes on the cogeneration/distributed generation industry will be invaluable to conference attendees.

Following the keynote address you have the choice of attending the sessions in Track 1 or 2 throughout the day. We will all meet up again for lunch and again at the end of the day for the barbecue dinner.

Please note that while this conference is again being held at McDonald's Campus, we will be in the University Building this year, not the Lodge. Please see the map on the back of this brochure for exact location. For information on exhibiting, contact Robert Conway at (630) 834-6000 or Robin Pelsis at (630) 323-7909.

See pages 6 and 7 for the complete conference brochure.

Visit the MCA at www.cogeneration.org for additional information.

FROM THE PRESIDENT

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As we all know each year brings to any association new challenges and opportunities to serve the needs of its members. Those needs vary widely from member education to public awareness to political action. Today, there are emerging opportunities in the cogeneration industry that bring new challenges to our association, requiring us to sustain a pro-active position in order to serve the needs of our members. Due to the rising concern over the environment, deregulation, and skyrocketing energy costs, significant opportunities are being created for our organization to take a leadership role in mitigating the uncertainty of today's energy market. The one certainty is that those user members that are well informed will survive these times prosperously.

The challenge, however, is how to turn up the "heat" on communicating those "cool" opportunities and the benefits of cogeneration to the marketplace. Engineers, end-users, developers and others influential in the heating, cooling, and utility decision making for commercial, residential, and industrial facilities must be made aware that it is in everyone's best interest to make cogeneration a requirement for both new and retrofit application. If we can successfully meet this challenge, members will not only have an independent and resource-rich place to send prospects for information, but also, the association will be fulfilling its goals and promises to its members, thus becoming a more noble organization that attracts new members.

The Midwest Cogeneration Association will be holding its Eighteenth Annual Conference on September 23rd at McDonald's Hamburger University in Oak Brook. We are very lucky to have the Honorable Kevin K. Wright, Commissioner, and Chair of the Electric Policy Committee for the Illinois Commerce Commission. He will be speaking on Cogeneration and Distributed Generation in the post 2006 energy marketplace. With the increasingly difficult decisions that energy users must make today, his experience, and insights will definitely help those users in long and short term planning. Our panelists in each of the track sessions will be presenting you with new views and ideas for optimizing your energy dollar. There will also be exhibitors from the industry that will be showing their technologies for helping the user save money and increase the reliability of their energy purchases.

See you at the conference!



For up-to-the-minute
information on the Midwest
Cogeneration Association visit
our website at:

www.cogeneration.org



MCA GOLF OUTING 2004



Volunteers Nancy Lake of LaSalle and Bud Wulff check in Scott Orsini of Fabco.

The sun was out, the grass was cut and MCA Golf Outing volunteers were hard at work at this year's 8th annual event. On July 22, 58 golfers came out to enjoy the ever popular golf outing hosted at Arrowhead Golf Course in Wheaton, Illinois.

Tee times started at 10:00 and ran through noon. The outing had a record number of sponsors this year including:

Alliant Energy, GE Jenbacher, The Edward D. Newell Co., Enercon Engineering, American Combustion Services, Inc., AMS Mechanical, Vaporphase, LaSalle Associates, Inc., Waukesha, Inland Detroit Diesel-Allison and the Gas Technology Institute. Thanks to our sponsors, nobody left the outing unrewarded. Prizes included; clubs, shirts, golf balls, gift certificates, wine and other misc. items.



Winning team: Don Becker, Tom Quasius, Bret Jackson, (Tom Palmer who snuck in for the photo opp.) and John Going.



Adam Tschetter of GE Zenith Controls follows his first drive of the day.

Award winning performances were turned in by; Bob Conway of Charles Equipment for Closest to the Pin, Tom Smith of Equity Office for Closest to the Pin and Peter Braun of Alliant Energy for Long Drive. The winning team of John Going, Don Becker and Tom Quasius all of Inland Detroit Diesel-Allison and Bret Jackson of GE Jenbacher shot a gross six under par 66 (scramble format).

Following the round of golf which was briefly interrupted by rain, the golfers gathered in a casual outdoor atmosphere to enjoy a barbeque style dinner. The awards ceremony was preceded by announcement from the MCA's new President, Bob Conway. Those announcements included the results of the latest MCA election and a "heads-up" on the 2004 MCA Annual Conference coming up September 23.

Thanks to Joe Cacic of The Edward D. Newell Co., we had photos of this year's event. If you played in the outing and would like an electronic copy of your photo, please email your request to golfouting@lasallegogen.com. Otherwise, you can view all the photos at www.lasallegogen.com.



Phil Barr of Presbyterian Homes takes dead aim.

INDUSTRY NEWS

LUMC COGEN FACILITY: A PROGRESS REPORT

Solar Turbines has contracted with the Loyola University Medical Center to design-build a cogeneration facility at the Maywood (Illinois) campus. The cogeneration facility will supply all of the steam and about 85% of the electricity required by LUMC. Some of the existing facility's boilers will be retained for back-up service.

The cogeneration facility will have a nominal capacity of 10,000 kW from two Solar Taurus 60S gas turbine-gensets. Each gas turbine will exhaust into a Deltak heat recovery boiler capable of producing 90,000 pph of 110 psig/sat steam at full-firing. The boilers will be equipped for fresh-air firing. Two full-size gas compressors will boost the pressure of natural gas to that required by the gas turbines and be located in a separate new building. The two gensets will operate in parallel with the ComEd grid via two 13.2 kV Plan C interconnections. This compact facility will be housed in a 6,000 sq-ft metal-sided building that adjoins the existing boiler house. All new and existing controls will be consolidated in a central control room located in the new building. A black-start diesel engine-genset will also be included.

Construction of the cogeneration facility commenced in April 2004 and is now about 50% complete. Turnover to the owner and commercial operation are scheduled for December 2004.

Engineering and design services were performed by EME, LLC of Lombard, Illinois. Project management services are being performed by Solar Turbines' Construction Services group in Houston, Texas. The general contractor is Bulley & Andrews, LLC of Chicago, Illinois.



IN MEMORY

Scott A. Castelaz, a former MCA member, was as passionate about his work in the on-site power generation industry as he was about finding the best and most obscure ethnic restaurants and bars in Chicago.

Mr. Castelaz, 39, of Chicago died Saturday, September 4, 2004 in Northwestern Memorial Hospital of peritoneal carcinomatosis, a rare form of abdominal cancer.

As vice president of corporate development and external affairs for Encorp Inc., a Colorado-based technology company that specializes in communication and controls for distributed generation, he believed on-site power generation would reduce energy costs, emissions and blackouts while improving reliability.

He graduated from Marquette University in Milwaukee in 1987 with a degree in electrical engineering and studied for his master's degree in business administration at DePaul University in Chicago in the mid-90's.

He joined Encorp's Chicago office in 1997 after spending eight years at ABB where he focused on marketing and business development. Before ABB, he worked at Westinghouse for two years.

Leo Kulmaczewski, former chief operating officer of Encorp said he will miss their long talks. "Scott and I would start what would look like a 5 or 10 minute phone call, and then an hour later we would be talking about mediation, family, the best place to get burgers in Milwaukee or beer in Chicago," he said.

The Midwest Cogeneration Association extends our deepest sympathy to the Castelaz family.

INDUSTRY NEWS

MIAMI (OHIO) UNIVERSITY SELECTS WÄRTSILÄ FOR INTERMEDIATE PEAKING POWER

Miami University at Oxford in Ohio, USA, has selected Wärtsilä to supply an intermediate peaking power system to supply electricity to its students during peak and intermediate demand hours. Wärtsilä will supply two Wärtsilä 18V34SG generator sets for the project, each producing 5732 kW. Each generator is scheduled to operate up to 2500 hours annually. The project will increase the reserve capacity of the university's power system, reducing the possibility of power outages. The plant was designed by Cummins & Barnard, Inc., of Ann Arbor, Michigan, USA. Cummins & Barnard provides engineering and consulting services for power generation, project development and facilities engineering. "This project continues to underscore the validity of the dispersed generation model," said Frank Donnelly, vice president of Wärtsilä North America, Power Plants. "By providing robust and reliable intermediate peaking power to universities, as well as to municipalities and independent power producers, we enable them to increase the reliability of power distribution to their customers. In this specific case, their customers happen to be the students, faculty and administrators of Miami University." Miami University is a state-assisted university. Its Oxford campus has 15,000 undergraduates and 1,300 graduate students. Total enrolment including regional campuses in Hamilton, Ohio and Middletown, Ohio is more than 20,000. "We chose Wärtsilä because of their unique product line and reputation for delivering engineered equipment packages on time and on budget," said Doug Hammerle, Associate University Engineer. "We were impressed with their range of experience and ability to meet project goals."

FUELCELL ENERGY TO PROVIDE DIRECT FUELCELL POWER PLANT TO THE U. S. ARMY

FuelCell Energy, Inc. has entered into a Cooperative Research and Development Agreement (CRADA) with the U. S. Army Engineer Research and Development Center/ Construction Engineering Research Laboratory (ERDC-CERL) and will provide a 250-kilowatt Direct FuelCell(R) (DFC(R)) power plant to the Department of Defense (DoD) Fuel Cell Test and Evaluation Center (FCTec) for evaluation in a combined heat and power application. This distributed generation fuel cell system will supply electricity, and the byproduct heat will be coupled with an adsorption chiller. The power plant will be located in Johnstown, PA at the FCTec, operated by Concurrent Technologies Corporation (CTC). CTC will operate and maintain the DFC300A in a combined power and cooling application utilizing natural gas as the supply fuel for the system. CTC will monitor, trend, and report on the operating and maintenance parameters of the DFC power plant and heat recovery equipment, including all auxiliaries. CTC will leverage the FCTec resources for the performance characterization of electrical and thermal output of the system. This information will allow FuelCell Energy to expand the knowledge of the DFC power plant's electrical and thermal operating parameters, efficiency, and system capabilities. The electrical output will provide a portion of the power requirement for CTC's Environmental Technologies Facility. The available high-temperature heat from the DFC power plant will be used to support the input energy needs of an absorption chiller system. The absorption process utilizes thermal energy to create chilled water to support the air conditioning requirement in the facility. Future application of the system will be to analyze the

use of the available system heat output from the DFC power plant for tri-generation—the supply of electricity as well as chilled and hot water in a combined system.

"We are pleased to have the opportunity to work with the ERDC-CERL and CTC in this DFC power plant demonstration," said Herbert T. Nock, FuelCell Energy's Senior Vice President of Marketing and Sales. "We believe that the use of the heat output from the power plant for air conditioning and other uses adds further to the overall value equation presented by our DFC power plants, and we look forward to testing and evaluating the results at FCTec."

Under the 12-month program, FuelCell Energy will retain title to the unit and equally cost share the labor to operate and maintain the unit with ERDC-CERL. Through ERDC-CERL funding, FCTec will provide heat recovery equipment and mobilization costs as well as all material and utilities, including fuel and water, for the operation and maintenance of the power plant.

"The FCTec's mission is to significantly accelerate the development and commercialization of fuel cell power systems for military and commercial applications, and this new project between FuelCell Energy and FCTec will contribute to our ongoing Fuel Cell Demonstration Projects," said Dr. Michael Binder, U.S. Army ERDC-CERL Fuel Cell Project Manager.

CONFERENCE PROGRAM

Thursday, September 23rd

- 7:30 a.m. Registration/Exhibits/Networking Breakfast
 8:00 a.m. Opening Introductions by Robert Conway, MCA President
 8:20 a.m. Keynote Presentation by the Honorable Kevin K. Wright, ICC Commissioner
 "Cogeneration and Distributed Generation in a Post-2006 Market"

Following the Keynote Presentation attend the Sessions of your choice in either Track 1 or 2. You also have the option of switching between Track 1 and 2 depending on the Session you want to attend. Breaks are scheduled at 10:45 a.m. and 3:30 p.m.

TRACK 1 - EQUIPMENT AND APPLICATIONS

DISTRIBUTED GENERATION APPLICATIONS AND TECHNOLOGIES

*Moderators: James Kezerle, Ricardo Engineering
 Ray Protich, Reliable Power, Inc.*

SESSION 1 9:30-10:45 a.m.

Jenbacher 420 Generator Set Advancements
Presenter: Bret Jackson, Sr. Business Manager, GE Jenbacher

MicroGrid Cogeneration Concept and Application
Presenter: John Brogan, Encorp

Recent R&D Advancements for Higher Efficiency and Lower Emissions
Presenter: Jim Kezerle, Ricardo Engineering

DISTRIBUTED GENERATION APPLICATIONS AND TECHNOLOGIES

*Moderators: James Kezerle, Ricardo Engineering
 Ray Protich, Reliable Power, Inc.*

SESSION 2 11:15-12:30 p.m.

Real Time Power Factor Correction for Cogeneration
Presenter: Larry Guzy, Business Development, Elspec North America

Distributed Generation Cooling & Heat Recovery Systems
Presenter: Clay Hardenburger, Applications Engineer, ENCO

Caterpillar 3520 Generator Set Advancements
Caterpillar Presenter to be Announced

12:30 p.m. LUNCH AND EXHIBIT VIEWING

CASE HISTORIES

SESSION 3 2:15-3:30 p.m.

Moderator: Dean Karafa, EME

Governmental Cogeneration System - VA North Chicago Energy Center
Presenter: Drew Gosling, Energy Systems Group

Industrial Cogeneration System
Presenter to be Announced

CONFERENCE PROGRAM

Thursday, September 23rd

TRACK 2 - REGULATORY & ECONOMIC FACTORS

REGULATORY & LEGAL UPDATE: SURVIVING & THRIVING IN A RAPIDLY CHANGING ENVIRONMENT

SESSION 1
9:30-10:45 a.m.

Moderator: Freddi Greenberg, Freddi Greenberg Attorney at Law

Recent Federal Developments Affecting Business Opportunities for Distributed Generation

Presenter: Robert C. Fallon, of Counsel, Dickstein Shapiro Morin & Oshinsky LP (Invited)

Additional speakers to be announced

THE COGENERATION MARKET / A BUSINESS PERSPECTIVE

SESSION 2
11:15-12:30 p.m.

Moderator: Tom Riemer, JTR Industries a division of the Power Generation and Control Group

A Roundtable Discussion with:

Panelist: David Patricoski, LaSalle Associates, Inc.

Panelist: John Cuttica, UIC Resource Center

Panelist: Thomas Smith, Equity Office Properties

Panelist: William O'Shea, O'Shea Environmental

Panelist: Tom White, Marathon Capital

12:30p.m. **LUNCH AND EXHIBIT VIEWING**

FUEL: OPTIONS, PRICES, AVAILABILITY—PRESENT AND FUTURE

SESSION 3
2:15-3:30 p.m.

Moderator: Tom Kelleher, AMS

A Roundtable Discussion with:

Panelist: Marty Melchi, Peoples Energy

Panelist: Bill Hoback, The Office of Coal Development

Panelist: Illinois Petroleum Resources Board (Invited)

3:45- **WRAP UP SESSION** Everyone reconvenes together for the final wrap up session.

4:30 *Presenter: David Miller, Energy Choices, Inc.*

p.m. *Presenter: Steffen Mueller, U of I Energy Resources Center*

4:30 **REFRESHMENTS AND BARBECUE**

p.m. Join your fellow conference attendees for a chance to exchange information while relaxing and enjoying a tasty barbecue dinner.



Midwest Cogeneration Association
P.O. Box 283
Western Springs, IL 60558-0283

RETURN SERVICE REQUESTED



September 23, 2004 - Eighteenth Annual Midwest Cogeneration Association Power Conference

Location: McDonald's Hamburger U
Contact: (630) 323-7909 or
www.cogeneration.org

September 28-30, 2004 - Natural Gas Storage Strategies 2004

Location: Embassy Suites Hotel,
Houston, TX
Sponsor: FEA
Contact: 818-888-4444

October 5-7, 2004 - Gas Volatility Integrating Fundamentals and Forwards

Location: Embassy Suites Hotel,
Houston, TX
Sponsor: Infocast
Contact: 818-888-4444

October 6-8, 2004 - Theory and Practice of Distributed Generation and Onsite CHP

Location: Sheraton Premiere Tyson's
Corner, Washington, DC
Sponsor: AEE
Contact: www.aeecenter.org

October 7-8, 2004 - Fundamentals of Energy Management

Location: Loews Vanderbilt,
Nashville, TN
Sponsor: AEE
Contact: www.aeecenter.org

October 12-14, 2004 - \$2.3 Billion in FY 2005 Energy Supply Technology R&D Opportunities

Location: Universities at Shady Grove
Conference Center, Rockville, MD
Sponsor: US Climate Change
Technology Program
Contact: www.climateotechnology.gov

October 18-22, 2004 - Comprehensive 5-Day Training Program for Energy Managers

Location: Arizona Golf Resort
Phoenix, AZ
Sponsor: AEE
Contact: www.aeecenter.org

October 25-27, 2004 - Atlantic Coast LNG 2004

Location: Holiday Inn, Boston Logan
Airport, Boston, MA
Sponsor: Infocast
Contact: 8185-888-4444

October 25-29, 2004 - Comprehensive 5-Day Training Program for Business Energy Professionals

Location: Hilton Philadelphia Airport,
Philadelphia, PA
Sponsor: AEE
contact: www.aeecenter.org

November 17, 2004 - MCA Bi-Monthly Membership Meeting

Location: TBD
Contact: (630) 323-7909 or
www.cogeneration.org

November 3-5, 2004 - Coal-fired Generation Sustainability & Resurrection

Location: Embassy Suites Hotel
Phoenix Airport, Phoenix, AZ
Sponsor: Infocast
Contact: 818-888-4444

November 15-19, 2004 - Comprehensive 5-Day Training Program for Energy Managers

Location: Hyatt Arlington,
Arlington, VA
Sponsor: AEE
Contact: www.aeecenter.org

Nov. 29-Dec. 3, 2004 - Comprehensive 5-Day Training Program for Business Energy Professionals

Location: Sheraton Safari,
Orlando, FL
Sponsor: AEE
contact: www.aeecenter.org

December 9-10, 2004 - Fundamentals of Energy Management

Location: Caesars Las Vegas,
Las Vegas, NV
Sponsor: AEE
Contact: www.aeecenter.org

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