

# Water and Wastewater Facilities Energy Efficiency Workshop

Wednesday, August 24, 2011 Northern KY ADD, 22 Spiral Drive, Florence, KY 41042

Thursday, August 25, 2011 FIVCO ADD, 32 FIVCO Court, Grayson, KY 41143

## Workshop Agenda

### 9:00 Opening Remarks

- Representatives of DEDI - Greg Guess\* (Director), Stefanie Osterman\*\* (Program Manager)
- Cam Metcalf (Executive Director), Kentucky Pollution Prevention Center
- Julie Smoak\*, Anshu Singh\*\*, Division of Water
- Gary Larimore (Director), Kentucky Rural Water Association

### 9:25 Fundamentals of Energy Savings Performance Contracting

- Michael Azzara (Business Development Manager), Siemens Industry, Inc.
- John Boyd (Business Development Executive), Utilities Dynamics, Inc.

### 10:00 Break

### 10:10 How Performance Contracting has benefitted the Commonwealth

- Paul Gannoe (Director), Office of Facility Development and Efficiency

### 10:25 Energy Savings Strategies in Water and Wastewater

- Angela Hedgecock (P.E., LEED AP), Siemens Industry
- Ravi K. Bhaskar (Ph. D.), Honeywell International

### 11:30 Lunch

### 12:15 Financing

- Sandy Williams (Financial Analyst), Kentucky Infrastructure Authority

### 12:30 Case Study

- David Wrightsman (Municipal Utility Sales Manager), Energy Systems Group

### 1:35 - 2:00 Panel Discussion

- Q&A, Best Practices, Where to Learn More!

\* - Presenting on Wednesday

\*\* - Presenting on Thursday

Presented By:

Sponsors:



Energy Services Coalition  
Kentucky Chapter



Kentucky Department for Energy  
Development & Independence



Kentucky Council of Area  
Development Districts



Kentucky Pollution  
Prevention Center



Kentucky Division  
of Water



Kentucky Rural  
Water Association

# Speaker Bios

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## **Michael Azzara**

Business Development Manager - Siemens Industry, Inc. - Building Technologies Division

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Mr. Azzara brings 18 years of experience in the development and implementation of energy efficiency projects for the public and private sectors in Kentucky and Southern Indiana. Mr. Azzara has been actively involved in the development of \$100 million of energy savings performance contracting projects in his career. Most recently, he was responsible for successful projects for the University of Louisville, Eastern Kentucky University, and a statewide traffic signal retrofit for the Kentucky Transportation Cabinet. Mr. Azzara is a past board member of the Energy Services Coalition, and has also served as co-chair of the Kentucky chapter. He is a graduate of the University of Louisville with both a M.Eng. and B.S. in mechanical engineering.

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## **Ravi K. Bhaskar, Ph.D.**

Honeywell International, Inc. - Waste Water Treatment Engineer

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Dr. Bhaskar has over 20 years of experience in environmental engineering process management. Prior to joining Honeywell, Dr. Bhaskar was the lead developer and subject matter expert for the creation of the AquaSync<sup>®</sup> system, a comprehensive web based operating system for wastewater engineering applications. Dr. Bhaskar has managed wastewater optimization projects at plants ranging from the very small (less than 5mgd) to the very large (greater than 150 mgd). He has provided process and design consulting for public and private clients. He operated an environmental testing laboratory that analyzed a million samples a year for water, wastewater, remediation, and hazardous waste applications. He holds two patents and earned a Ph.D in Chemical Engineering from the University of Kansas.

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## **John Boyd**

Business Development Executive - Utilities Dynamics, Inc.

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Mr. Boyd is an experienced senior energy professional with more than 15 years in positions of responsibility providing customer oriented energy services and expediting the adoption of energy and environmental technology and its cost effective application in the marketplace. Since joining the Energy Industry, Mr. Boyd has developed projects in the Public, Industrial and Commercial. Notable projects include work in Pharma Manufacturing, Man-made Fibers, Printing, REITS, Colleges, Municipalities, K12, and Building Supplies Manufacturing. John resides and works in Louisville, KY.

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## **Paul Gannoe**

Office of Facility Development and Efficiency - Executive Director

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For the past seven years Paul has worked for the State of Kentucky. Currently he serves in the Finance Cabinet, as the Executive Director of the Office of Facility Development and Efficiency. Prior to that he was the Director of the Division of Engineering and Contract Administration. The Office of Facility Development and Efficiency administers capital construction projects for the State and also administers the states Guaranteed Energy Savings Performance Contract program. Paul is a graduate of Tennessee Technological University and spent six years in the Navy's nuclear propulsion program.

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## **Angela Hedgecock, PE, CEM LEED AP**

Siemens Industry, Inc. - Building Technologies Division - Alternative Energy Group

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Ms. Hedgecock has 12 years of experience in the energy and water conservation fields and has developed projects in the K-12, higher education, healthcare, state and local government, LEED green buildings and municipal metering, water and wastewater markets. In her current role, Ms. Hedgecock is responsible for identifying and developing energy efficiency and process optimization project opportunities within the municipal water and wastewater market both jointly with Siemens Water Technologies and Siemens Turbo Machinery. She handles the project development activities of water meter AMR/AMI, water and wastewater treatment plant projects including data collection, field audits, cost and savings analysis, scope development, coordination with consulting engineers, and development of contract documents. Ms. Hedgecock resides in Mulberry, Florida.

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## **Cam Metcalf**

Executive Director - Kentucky Pollution Prevention Center

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Mr. Metcalf is a national leader in pollution prevention, energy efficiency and sustainability. He joined the Kentucky Pollution Prevention Center (KPPC) as Executive Director in 1995. His experience includes tenures at the University of Tennessee's Center for Industrial Services, University of North Carolina-Asheville and the U.S. Environmental Protection Agency. Cam holds an M.S. in Civil Engineering & Environmental Science. Appointed by the Governor of Kentucky, he currently serves on the Board of Directors for the Conn Center for Renewable Energy Research and Environmental Stewardship, and on the Drought Mitigation and Response Advisory Council. He is also a member of the University of Louisville Sustainability Council.

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## **David Wrightsman**

Municipal Utility Sales Manager - Energy Systems Group

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David Wrightsman has over 17 years of experience in performance contracting and has developed over 50 projects for education, healthcare, governmental and industrial clients. Included are many projects that were developed to provide energy efficiency solutions and overall process improvements for water and waste water treatment facilities. Among his responsibilities at ESG, David serves as a resource, company-wide, for municipal utility projects. He is a licensed professional engineer in Indiana & Ohio, a Certified Energy Manager, and a Certified Green Building Engineer. David holds a Bachelor of Science in Engineering degree from Purdue University.