

CHP and Sustainability Workshop: The Role of Combined Cooling,  
Heating, and Power (CHP) in Florida's Energy Future  
August 10, 2008 Jacksonville, FL

Speaker Biographies

**Ted Bronson, Power Equipment Associates**

[tbronson@PEAonline.com](mailto:tbronson@PEAonline.com), 630-248-8787

Ted Bronson, president of PEA, brings more than twenty years of experience in the power generation industry to the counsel he provides his clients. Prior to founding Power Equipment Associates, Ted Bronson was instrumental in growing the distributed energy and specialty engineering groups at Gas Technology Institute (GTI) and Duke Energy respectively. One of the leading industry consultants on diesel generators, Bronson leveraged this expertise to build a foundation of knowledge in clean energy markets and technologies. He has supported the US DOE's initiatives in distributed generation, Combined Heat and Power and MicroCHP. Mr. Bronson was instrumental in the development of the Midwest CHP Application Center, DOE's first regional pilot Application Center, and in the design of the regional CHP initiatives. He chaired the Midwest Regional Initiative, the first initiative of its kind, and helped expand these government/industry partnerships across the U.S. In 2003, he was awarded the CHP Champion Award in recognition of his contributions to the CHP Community. He is currently on the executive board of the USCHPA.

**Louay Chamra, Mississippi State University**

[chamra@me.msstate.edu](mailto:chamra@me.msstate.edu), 662-325-0618

Dr. Chamra is the Acting Department Head and Professor of Mechanical Engineering at Mississippi State University. He is the Director of the Micro-CHP and Bio-Fuel Center, and Co-Director of the Southeast CHP Application Center which is hosted by MSU and NCSU. His specialty areas include heat transfer enhancement, heat exchangers, boiling and condensation, refrigeration and process equipment. Dr. Chamra has published articles on these topics in numerous journals including the *Journal of Mechanical Engineering Science*, *Journal of Power and Energy*, and the *International Journal of Energy Research*. Dr. Chamra received his M.S. from the University of Portland and Ph.D. in Mechanical Engineering at Pennsylvania State University.

**Anne Hampson, ICF International**

[AHampson@icfi.com](mailto:AHampson@icfi.com), 703-373-6631

Anne Hampson is a senior associate with ICF International working in the Energy Group's Energy Systems practice. She has five years of experience in market and policy analysis in the areas of power generation and energy efficiency. She focuses primarily on the area of distributed generation, and combined heat and power (CHP). Ms. Hampson leads efforts in the development and management of databases on installed CHP capacity as well as operational reliability of DG equipment. She has conducted analysis and research on market issues, regulatory policies, economic incentives, reliability issues, emissions issues, and performance characteristics of distributed generation equipment. Ms. Hampson has also been involved in market and economic research assisting new

distributed energy technology developers to commercialize their products. While employed at Pace Global Energy Services, Ms. Hampson focused on analysis of industrial energy systems while using real time energy monitoring software. She holds a B.S. in Integrated Science and Technology from James Madison University, and is currently pursuing an M.B.A. from George Washington University.

**Alex Hobbs, PhD, PE, NC Solar Center at NC State University**

[Alex\\_hobbs@ncsu.edu](mailto:Alex_hobbs@ncsu.edu), 919-515-6366

Alex Hobbs has more than 38 years of engineering experience in the areas of electric power generation and delivery, water and wastewater treatment, as well as production agriculture and food processing. As an in-house consultant for a major southeastern utility, he has led applied R&D programs to evaluate advanced power production technologies, combined heat and power applications, use of solar, wind and biomass based renewable resources and demand side management options. Currently he is Associate Director for Renewable Technologies for the NC Solar Center at NC State Univ. and is working on Combined Heat and Power projects, opportunity fuels and biomass feedstock assessments for NC as well as demonstrating the economic value of reduced carbon technologies for producing biobased fuels, power and products.

**B.K. Hodge, Mississippi State University**

[Bh45@msstate.edu](mailto:Bh45@msstate.edu), 662-325-7315

B. K. Hodge is Professor of Mechanical Engineering at Mississippi State University (MSU) where he serves as the TVA Professor of Energy Systems and the Environment and is a Giles Distinguished Professor and a Grisham Master Teacher. He is the author of more than 170 conference papers and archival journal articles as well as three textbooks and served as President of the American Society for Engineering Education (ASEE) Southeastern Section for the 1999-2000 Academic Year. He was the 2004-2005 Chair of the Mechanical Engineering Division of the ASEE. Hodge is a Fellow of the ASEE and ASME and an Associate Fellow of the AIAA.

**Roger Lawrence, NC Solar Center at NC State University**

[Rglawre2@unity.ncsu.edu](mailto:Rglawre2@unity.ncsu.edu), 919-515-6682

Roger Lawrence, PE, CEM, is a Project Engineer for site assessments at the Solar Center's Distributed Generation Program. His focus is on electrical reliability, energy conservation and system efficiency in the workplace based on a multidisciplinary approach to problem solving. He has extensive knowledge of power electronic equipment, including the design and application of uninterruptible power supplies, adjustable speed drives, impulse power generators and offers solutions for power system problems. He has published IEEE papers for a variety of industries. Mr. Lawrence has a bachelor's in electrical engineering from Imperial College in London, a Master's of Business Administration from Mercer University and is a senior member of IEEE. He is a registered professional engineer in North Carolina, Florida, Georgia and Texas.

**William Lear, Ph.D., University of Florida**

[lear@ufl.edu](mailto:lear@ufl.edu), 352-392-7572

Dr. Lear received his PhD from Stanford University in 1984, focusing on MHD energy conversion. He has been on the faculty at the University of Florida since that time, specializing in energy systems, high-energy gasdynamics, and combustion. Together with Dr. S.A. Sherif, he is the inventor of the Power, Water Extraction, and Refrigeration distributed energy system. He is the author of over 150 journal and conference publications and is the Chair-elect of the AIAA Terrestrial Energy Systems technical committee.

**Ed Mardiat, Burns & McDonnell Engineering Company, Inc.**

[emardiat@burnsmcd.com](mailto:emardiat@burnsmcd.com), 850-245-8279

With more than twenty-five years of design and project management experience, Mr. Mardiat has focused his efforts over the past 12 years in the areas of business and project development of on-site energy projects. Mr. Mardiat is currently working with several Fortune 500 companies, municipal utilities, universities/colleges and healthcare companies to develop cooling, heating and power projects that deliver higher energy efficiency, improved reliability with significantly lower emissions resulting in a more sustainable and environmentally sound solution.

**Keith McAllister, NC Solar Center at NC State University**

[Keith\\_mcallister@ncsu.edu](mailto:Keith_mcallister@ncsu.edu), 919-515-3933

Keith McAllister is currently the Manger of the Distributed Generation Program at the NC Solar Center. Keith is also the Co-Director of the Southeast CHP Application Center which is a DOE regional application center for CHP projects in the southeastern United States. With more than 25 years experience in engineering design, project management, product development and construction, Keith has worked in the areas of electric power generation and delivery, data center infrastructure design and support, development and implementation of demand side management programs and construction projects. He worked as engineer in the Research and Development Section for a major southeast electric and gas utility. As a Professional Engineer, Keith has provided consulting services to established local engineering firms in the areas of Plumbing, Mechanical and Electrical design for commercial buildings and Structural Design for residential buildings.

**Michael Ohlsen, Florida Energy Office**

[Mechael.ohlsen@dep.state.fl.us](mailto:Mechael.ohlsen@dep.state.fl.us), 850-245-8279

Michael is with the Governor's Energy Office where he is responsible for managing projects and policy related to: biomass (e.g. bioenergy, biogas and biofuels), energy efficiency and green building practices, hydrogen technologies and alternative fuel vehicles. Earlier in his career, he served as an officer in the U.S. Air Force and worked in the fields of pollution prevention, recycling and waste management. His education includes an MS in Industrial Engineering from the University of Tennessee and a BS in Electrical Engineering from Cornell University.

**S.A. Sherif, University of Florida**

[sasherif@ufl.edu](mailto:sasherif@ufl.edu), 352-392-7821

Dr. S.A. Sherif is a tenured Professor of Mechanical and Aerospace Engineering and is the Founding Director of the Wayne K. and Lyla L. Masur Laboratory and the Assistant Director of the Industrial Assessment Center at the University of Florida (UF). He is a Fellow of ASME, a Fellow of ASHRAE, an Associate Fellow of AIAA, a Member of Commission B-1 on Thermodynamics and Transfer Processes of the International Institute of Refrigeration, and a Member of the Advisory Board of Directors of the International Association for Hydrogen Energy. He is an Associate Technical Editor of three journals: the ASME Journal of Heat Transfer, International Journal of Hydrogen Energy, and Solar Energy. He is a Book Review Editor of ASME's Applied Mechanics Reviews and a member of the Editorial Advisory Board of the International Journal of Exergy, the Open Energy and Fuels Journal, and the Open Renewable Energy Journal. His honors include ASHRAE's E.K. Campbell Award of Merit, a UF "TIP" teaching excellence award, the Kuwait Prize in Applied Sciences, an ASHRAE Distinguished Service Award, and an AIAA Best Paper Award. In 2007, he received a Superior Accomplishment Award from the University of Florida and in 2008 was elected ASHRAE Distinguished Lecturer. He has 370 publications including 18 book chapters and two US patents.

**Debbie Weems, Industrial Technologies Program (ITP), US Department of Energy**

[Debbie.weems@go.doe.gov](mailto:Debbie.weems@go.doe.gov), 303-275-4957

Ms. Weems is currently the Energy Savings Assessment (ESA) Coordinator for the Southeastern Region of the U.S., and works in the Industrial Technologies Program for the Department of Energy, Golden, Colorado Office. Ms Weems received her BS in Environmental Science from Colorado State University in Fort Collins, Colorado. She worked a number of years in the environmental field for the State of Colorado and the DOE, Rocky Flats Office, prior to joining the DOE Golden Office in 2005. The Golden Office supports the DOE's Office of Energy Efficiency and Renewable Energy. While with the DOE Golden Office, Ms Weems has served as Project Manager for the Inventions and Innovation Program and recently assumed responsibilities as Energy Savings Assessments (ESA) Coordinator for the Southeastern Region of the U.S.