

## Combined Heat and Power Newsletter

This spring we are pleased to bring you the premier issue of our quarterly newsletter Combined Heat and Power. This free newsletter will highlight stories and events of interest to the CHP community, and will occasionally provide in-depth insight into the latest “hot topics.” While our focus is primarily upon the Southeast region, we will also incorporate news from across North America. You can link directly to our sources by clicking on the “More Details” link below each item. This newsletter will be prepared by the CHPCenterSE and published at the end of each quarter. We welcome your thoughts and contributions.

To subscribe or provide comments, please send an email to Maureen Quinlan at [mequinla@ncsu.edu](mailto:mequinla@ncsu.edu).

**Volume 1, Issue 1  
First Quarter 2008**

**Compiled by  
Maureen Quinlan**



### About Us

The Southeast CHP Application Center (CHPCenterSE) was established in 2004 for the US Dept. of Energy. Its mission is to provide application assistance, technology information, and educational support for CHP in the Southeastern U.S. The CHPCenterSE is co-located at [Mississippi State University](#) and [North Carolina State University](#).

### News from the Southeast

#### NC Energy Conference Discusses REPS Rules for Industrial Efficiency, CHP

The 3rd Annual Industrial Energy Conference kicked off in Raleigh on Wednesday, April 9th, 2008 at the Jane S. McKimmon Center, NC State University. The conference, “Energizing NC Industries through Efficiency and Advanced Technologies” was part of the two-day 5th Annual Sustainable Energy Conference. More than 100 people representing industries, utilities and local energy service companies attended the event to learn about CHP, energy efficiency, and how North Carolina’s new Renewable Energy and Energy Efficiency Portfolio Standard (REPS) rules provide opportunity for industrial operations.

[More Details](#)

#### North Carolina REPS Rules Finalized

On February 29, 2008, the North Carolina Utilities Commission issued an order which finalized the rules for the state’s new Renewable Energy and Energy Efficiency Portfolio Standard. This REPS is important because it specifically lists CHP as a technology that can count towards the utilities’ goal of energy efficiency savings or a renewable energy resource (if fueled by renewables). These rules were promulgated in response to legislation which requires the state’s regulated utilities to meet 12.5 percent of their retail electric utility demand through renewables and efficiency by 2021. North Carolina became the first state in the southeast to adopt an REPS when Senate Bill 3 was signed into law in August 2007.

[More Details](#)

### **Florida's New Interconnection/Net Metering Rule Incorporates CHP**

On March 4, 2008, the Florida Public Service Commission issued an order ratifying its proposed IC/NM rule. This rule expands the type of eligible systems from solely PV to all renewables including "waste heat". The rule also expands the size of eligible systems from 10 kW to 2 MW; expedites the interconnection process; requires a standardized interconnection agreement; eliminates the standby charge; and, permits net metering. The net metering credit for excess generation is one-to-one with the utility's retail rate and carries forward for a period of twelve months and, year-end excess credits are paid to the customer at the utility's average annual avoided cost of production. The renewable energy credits belong to the DG owner, but may be sold to the utility.

[More Details](#)

### **CHP Center SE Awarded Grant for Micro-CHP Demonstration Project**

The CHP Center SE, working with B.J. Williamson LP Gas, Inc., has been awarded a grant to demonstrate the technical and economic viability of incorporating photovoltaics (PV), solar thermal, and propane-fueled combined heat and power (CHP) into an integrated distributed generation (DG) system at their Clinton, North Carolina liquid propane gas distribution facility. The system will be a fully operational grid tied demonstration showcasing the potential of integrating renewable power with a propane-fueled micro-CHP unit in a sustainable, reliable, and marketable energy generation system. This grant will be funded through the Propane Education and Research Council's Propane Distributed Generation Demonstration Program.

[Contact: Tim Lupo](#)

### **Capstone Announces New Distributor Agreement for Southeast US**

On Feb. 27, Capstone Turbine Corporation signed a new Distributor agreement with Louisiana-based Reagan Equipment Company Inc. This agreement applies to all applications and market segments in Louisiana, Mississippi, Georgia, the Carolinas, Tennessee, Florida, and the Gulf of Mexico. Capstone is "the world's leading clean technology manufacturer of microturbine energy systems." Through this partnership, Capstone will be able to leverage Reagan Equipment's sixty years of experience installing equipment for electricity generation, gas compression, sewage treatment, cogeneration, and chiller plants.

[More Details](#)

### **Florida RPS Bill Introduced to State Legislature**

On March 4, 2008, bills were introduced in the Florida state Senate and House (S.B. 2870 and H.B. 1375) which would require the Public Services Coalition to develop a renewable portfolio standard by September 2009. Echoing the new Interconnection Rule, this bill's definition of a "renewable energy resource" also includes energy produced from "waste heat". If adopted, this would allow CHP owners to sell their excess electricity to the utilities as a way to meet their mandated renewable energy goal.

[More Details](#)

---

### CHP Systems Reduce the Global Warming Intensity of Producing Ethanol from Corn

A paper entitled, "Global Warming Intensity of Ethanol," written by Dr. Steffen Mueller and published in the January 2008 issue of the BioCycle Energy magazine, estimates the global warming intensity of various methods of producing ethanol from corn. The estimates, made using the BEACCON model, conclude that CHP systems reduce the global warming intensity of producing ethanol from corn.

[More Details](#)

### Combined Heat & Power Resource Guide for Hospital Applications

A "Combined Heat & Power Guide for Hospital Applications," developed by the Midwest CHP Application Center for the U.S. Department of Energy is now available. The healthcare sector is a prime candidate for CHP because of their need to both reduce energy costs and increase energy reliability. This guide includes a basic overview of CHP technology and "rules of thumb" for healthcare facilities to follow when evaluating if a CHP system is appropriate for them.

[More Details](#)

### Texas CHP Initiative Applauds PUC for New Energy Efficiency Rules

In response to rapidly increasing power demand in Texas, the state legislature passed an omnibus efficiency bill in 2007. Among other measures, it sets a goal for utilities that administer energy efficiency incentive programs to meet 15% of their demand growth with these customer efficiencies by the end of 2009. With support from the industry-led group Texas CHP Initiative, the Public Utility Commission of Texas (PUC) has amended the energy efficiency rule to include CHP systems under 10 MW, making it easier for smaller customers such as hospitals and buildings to enroll in the utilities' efficiency programs.

[More Details](#)

### NARUC Passes Resolution to Encourage CHP

At their Winter Meeting, the National Association of Regulatory Utility Commissioners (NARUC) approved a *Resolution to Encourage the Use of Combined Heat and Power, including the Recycling of Waste Energy*. The resolution, passed by the Committee on Energy Resources and the Environment, highlights the U.S.'s underutilization of CHP compared to other industrialized nations. In order to promote the use of CHP in the US, the resolution encourages commissions to implement policies that encourage net metering, remove institutional barriers to CHP, and properly compensate owners for the grid-related benefits of their technology.

[More Details](#)

### New Whole Foods Market to Generate On-Site Power with Fuel Cell Technology from UTC Power

A new Whole Foods Market, which opened in March, utilizes a fuel-cell driven CHP system to produce half of its heat and electricity and almost all of its hot water. The 46,000-square-foot supermarket, located in Glastonbury, CT, will generate its power from an "ultra-clean" UTC Power fuel cell system. This system will capture the waste heat normally released to the atmosphere and use it for heating the building and cooling the food storage areas. Operating off the grid allows Whole Foods to avoid costly food spoilage if there is an outage. The company estimates the annual emissions savings from this project are equal to planting 21 acres of forest and removing 100 cars from the road.

[More Details](#)

### DOE Will Accelerate CHP Activities in 2008

The US DOE's Industrial Technologies Program outlined its plans for promoting efficiency as an energy resource in the March issue of *Reliable Plant* magazine. The ITP's plan includes accelerating its CHP activities in 2008. The funds necessary to enable this plan come from the Omnibus 2008 Appropriations Act, which authorized \$10 billion in loan guarantee authority for renewable and/or energy efficient systems and distributed energy generation. The use of bio-based and opportunity fuels will be given priority as ITP assesses a variety of options, including demonstrations.

[More Details](#)

## US EPA Partnership Releases GHG Reduction Report to Partners

All 200+ member organizations of the US EPA CHP Partnership submit an account of their CHP-related projects each year. These activities are compiled, quantified, and distributed to all members in the Greenhouse Gas Reduction Report. American DG Energy and EPCOR Power L.P. have both released their results.

[More Details](#)

American DG Energy, an On-Site Utility based in Massachusetts, has avoided releasing 7,400 metric tons of Carbon equivalents by using CHP systems to power various healthcare, athletic, and housing facilities. This corresponds to planting 2,006 acres of forest.

[More Details](#)

EPCOR is a power generator with facilities across the US. They've been recognized by the EPA for the immense emissions avoidance that has resulted from operating 13 of their plants with CHP systems. These include plants in Indiana, California, North Carolina, Colorado, and New Jersey. Compared to plants using separate electricity and heating systems, these CHP plants reduced carbon emissions by nearly 11 million tones. This is the equivalent of removing 485,404 cars from the road.

[More Details](#)

## US EPA CHP Partnership Releases National Utility Standby Rates Research

Excessive fees and inappropriately designed rates are potential barriers for the adoption of CHP and other distributed generation technologies. Standby rates are those a customer must pay their utility for power in the event that their DG system is not producing power (unexpectedly or for maintenance). In February, the US EPA released the findings of a summer 2007 research project aimed at mapping the current status of standby rates in each state. The research shows that only seven states have standby rates in place that "value the costs and benefits of DG," mostly in the Northeast and West coast.

[More Details](#)

## Upcoming Events

### [Optimizing Ethanol Plants Conference](#)

May 14–16, The Millennium Hotel, Minneapolis, MN

### [3rd Annual Renewable Energy Finance and Investment Summit](#)

May 19-21, The Westin Arlington Gateway, Arlington, VA

### [Energy Efficiency Cost Recovery Forum](#)

May 20–21, Ronald Reagan Building and International Trade Center, Washington, D.C.

### [EPA CHPP Partners Meeting](#)

June 5-6, Hamilton Crown Plaza, Washington, DC

### [2008 Fuel Ethanol Workshop & Expo](#)

June 16-19, Gaylord Opryland Resort and Convention Center, Nashville, TN

### [4th German American Renewable Energy Conference - Biomass: Power, Heat, and Fuels](#)

June 24, Syracuse, NY

### [99th Annual Conference & Trade Show: District Energy/CHP 2008](#)

June 29- July 2, Renaissance Orlando Resort at Sea World, Orlando, FL

### [ASME Power](#)

July 22-24, Disney's Contemporary Resort, Orlando, FL

[CHP and Sustainability Workshop: \*The Role of Combined Cooling, Heating, and Power \(CHP\) in Florida's Energy Future\*, Register Here](#)

August 10, Hyatt Regency Riverfront, Jacksonville, FL

Published April 21, 2008