



The Baseline

No. 33

Jan. 12, 2012

Dear Ross,

Happy New Year! GC RAC begins 2012 by pressing forward on a number of important CHP priorities, such as providing greater service offerings to industrial adopters in the Gulf Coast region. In the next month, we will restart our popular weekly webinar series and also support NOx permitting reform at the Texas Commission on Environmental Quality. Look for future editions of The Baseline for periodic updates. GC RAC wishes its readers a prosperous and productive 2012.



Dan Bullock
Director, U.S. DOE Gulf Coast Clean Energy
Application Center

Louisiana PSC Proceeds with Energy Efficiency Rulemaking

Third Round of Comments due Tomorrow

The Louisiana Public Service Commission (PSC) has released its first [proposal \(deadline extension\)](#) on developing a statewide energy efficiency (EE) program. The proposal broadly recommends a two-phase approach for the statewide program, which would determine EE targets and eligible measures for electric and gas utility companies. The deadline to file comments on PSC staff's Phase 1 recommendations is this Friday, Jan. 9. Four copies of comments must be filed in hard copy format.

Phase 1 involves a series of trial "Quick Start" programs broadly intended to encourage utilities and their customers to become more

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Contribute to the cause!

We welcome suggestions for our newsletter, including guest columnists. [Contact us](#) or take our [newsletter survey](#).

Must Read

The Union of Concerned Scientists has issued a [report](#) on the excessive water use in power plants. In addition to consuming large amounts of water, power plants are at higher risk of shutting off under severe drought conditions if freshwater supplies are lacking and triggering blackouts. (See also New York Times [blog post](#) on the report.)

Although not mentioned in the report, CHP uses relatively

energy-efficient in the short term. Each utility has 60 days to determine which self-selected EE measures are the most cost-effective before including them in its Quick Start EE portfolio. CHP may be considered among such measures. Once set, utilities' Phase 1 programs will be implemented over a 36-month period with evaluations conducted every 12 months. Results from Phase 1 will inform the development of the more comprehensive Phase 2. Rulemaking for Phase 2 will not begin until after Quick Start programs have been implemented over the next 365 days. Development of Phase 2 programs will require input by stakeholders on several key issues, including CHP's eligibility. Gas-fired CHP was excluded from the state's new pilot Renewable Portfolio Standard, which allows for all forms of waste heat recovery and biomass-only CHP.

U.S. EPA Issues Boiler MACT Ruling

The U.S. EPA has released the proposed reconsidered Boiler MACT rules. The three new rules pertain to Major Source MACT, Area Source MACT, and Commercial/Industrial Incinerators. CHP falls under Major Source MACT.

EPA will accept public comment for 60 days following publication in the Federal Register, which occurred on Dec. 23, 2011 ([76 Fed. Reg. 80598](#)). Public comments on the rule must thus be filed by February 21, 2012. EPA will issue its final rule in April.

U.S. EPA's revision of air quality permitting requirements for boilers incorporates output-based standards that recognize combined heat and power's environmental benefits. Pending reconsideration by national stakeholders, the rule would reduce pollution and improve air quality and public health. The rule's previous use of input-based standards only took into account fuel intake, thus failing to recognize efficiencies of that fuel use and creating a regulatory barrier for CHP implementation. Conversely, output-based standards do account for the extent of systems' efficiencies.

By default, regulated facilities are given three years to comply with the rule; however, the revised rule clarifies that CHP qualifies as an "add-on control," justifying a request for a one-year compliance extension by regulated entities. Of particular interest, EPA intends to launch a technical assistance program in conjunction with the final rule, which would help regulated facilities explore opportunities to incorporate CHP and WHR into their compliance plans.

Downloads:

- Proposed rule: [Full text](#) (Federal Register)
- Overview of changes and impact: [Fact sheet](#) | [PPT presentation](#)
- [DOE and USDA technical assistance](#)
- Major source MACT: [Fact sheet](#) | [Full text](#)

little water and helps facilities remain operational during blackouts. GC RAC's recent [White Paper](#) projects water conservation associated with an increase in Texas CHP deployment.

The *Austin American-Statesman* published an [article](#) this week on the same theme. The story predicts job losses and other threats to the economy in Texas in the event of prolonged droughts and continued excessive water consumption by centralized power generation.

R. Neal Elliott, Associate Director of Research at [ACEEE](#), authored a [column on GreenBiz.com](#) this week about CHP's growing recognition among policymakers and efforts to spur greater adoption.

The *Data Center Journal* touts the benefits of Combined Heating and Cooling Power for ensuring energy reliability in data centers.

Important Dates

Jan. 13

Deadline Extension for Comments: Louisiana EE [Rulemaking](#)

Jan. 16-18

Pacific West Biomass [Conference and Trade Show](#) (San Francisco, CA)

Jan. 17

SEE Action Industrial EE Group [Webinar: EPA Regulations & CHP](#)

Jan. 20

AEE [Award Nominations Deadline](#)

- Area source MACT: [Fact sheet](#)

CLEAN ENERGY WEBINAR SERIES

GC RAC Weekly Webinars Restart

We kick off our 2012 webinar lineup with two offerings next month. Register for these webinars below.

As always, our webinars are free and qualify for PDH/CEU credits. More listings of future offerings will be published soon in our newsletter and on our [website](#).



Combined Heat and Power: Basics and Benefits

Thurs., Feb. 9, 10:00-11:00 a.m. CDT | Cost: Free | [REGISTER NOW!](#)

Incentives for CHP Projects

Wed., Feb. 15, 10:00-11:00 a.m. CDT | Cost: Free | [REGISTER NOW!](#)

Guest Speaker: Melissa Mullarkey, Recycled Energy Development

IDEA Campus Energy Conference to Focus on Clean Energy Innovations

To be held Feb. 6-9 in Arlington, VA

The International District Energy Association's 25th Annual Campus Energy Conference next month will focus on "Innovations in Clean Energy" and feature several paneled discussions on CHP and waste heat recovery. The conference includes:

- Two pre-conference workshops
- Exhibit hall
- Dozens of paneled discussions on:
 - Energy Master Planning
 - CHP (Cogeneration) - Case Studies and Integration
 - Biomass, Renewables and Fuel Flexibility
 - Emissions and Environmental Regulations
 - District Cooling, Thermal Storage and Micro-Grid

Visit [IDEA's website](#) for more information and to register. IDEA is a member of the U.S. Department of Energy [RAC network](#).

TXCHPI CORNER

Jan. 20

AEE [Award Nominations Deadline](#)

Feb. 1

U.S. DOE Steam Best Practices End User [Workshop](#) (Houston, TX)

Feb. 6-9

IDEA: [Campus Energy Conference/Workshop](#) (Arlington, VA)

Feb. 7

SEE Action Industrial EE Group [Webinar: Showcasing Model Utility IEE Programs](#)

Feb. 7-9

ICEPAG [Colloquium](#) (Costa Mesa, CA)

Feb. 9

GC RAC Webinar: [CHP Basics and Benefit](#)

Feb. 15

GC RAC Webinar: [Incentives for CHP Projects](#)

Mar. 1

Texas Industrial Energy Management [Forum](#)

Mar. 6

SEE Action Industrial EE Group [Webinar: Elevating IEE Regulatory Issues for Commissioners](#)

Apr. 3

SEE Action Industrial EE Group [Webinar: Facilitating Peer-to-Peer Dialogues on IEE](#)

May 1

SEE Action Industrial EE Group [Webinar: Building an IEE Workforce: Needs and Opportunities](#)

June 5

SEE Action Industrial EE Group [Webinar: CHP Best Practice Policy Implementation](#)

Legislators Consider CHP to Counter Future Droughts



[Paul Cauduro](#)
Executive Director

Texas's record drought has piqued legislators' interest in less water-intensive means of power generation. In the interim prior to the 2013 session, several members have been charged with issuing a report that evaluates the economic, environmental, and social impacts of the current energy-water nexus and proposes new ways to conserve water while meeting future energy needs.

Because CHP uses far less water than the average coal or gas-fired power plant, the Texas CHP Initiative has been asked to present on CHP's benefits before the Texas House Committee on Natural Resources, set to happen in April. The water-saving benefits of CHP are clear; the challenge lies in convincing legislators to encourage additional capacity.

My April testimony will rely on GC RAC's recent [White Paper](#), which quantifies CHP's environmental benefits were statewide capacity to increase from 20 percent to 35 percent of all electricity production in Texas by 2025. In addition to lowering emissions significantly, this scenario would reduce water consumption by roughly 25 billion gallons per year-enough to irrigate about 40,000 acres of Texas farmland. This would be welcome news to farmers who already face water rationing by the Lower Colorado River Authority.

CHP can also help in the energy-intensive desalination of the state's abundant brackish groundwater. The Texas Water Development Board has provided \$2.6 million for 12 test projects. None of them include CHP, which is why my testimony and continued presence at the State Capitol and various state agencies are all the more necessary to reshape the future of Texas's energy and water use.



SEE Action Industrial Efficiency, CHP Working Group To Offer Webinars

The State and Local Energy Efficiency Action Network's (SEE Action) Industrial Energy Efficiency (IEE) and CHP Working Group invites representatives from states, utilities, manufacturers, and other local stakeholders interested in energy efficiency to attend its FY 2012 [Webinar Series](#). The webinars will feature expert speakers discussing ways to advance energy efficiency policies and programs, remove barriers, and grow state and local investment in IEE.

June 7

Texas Industries of the Future
[Energy Efficiency in the Chemical Process Industries](#)
(Galveston, TX)

June 30 - July 3

[IDEA: Annual Conference](#)
(Chicago, IL)

Oct. 4

TXIOF Texas Industrial
Energy Management [Forum](#)
(League City, TX)

Oct. 20

Consumer Energy Alliance
[Energy Day](#)
(Houston, TX)

[< FULL CALENDAR >](#)

Newsletter Archive

Missed an issue? [Visit our website](#) to catch up on Gulf Coast clean energy developments!

About the Center

The U.S. Department of Energy Gulf Coast Clean Energy Application Center (GC RAC) facilitates greater deployment of clean energy technologies like combined heat and power (CHP), district energy, and waste heat recovery in Texas, Louisiana, and Oklahoma.

The GC RAC provides education and outreach programs to technology adopters, policy makers, and regulators. We also provide project-specific support services to help adopters evaluate the benefits of clean energy technologies. In addition, we work with the clean energy industry and other stakeholders on policies supporting clean energy.

SPOTLIGHT

Dan Bullock
GC RAC

Who should participate: Industrial corporate energy managers and other company and facility staff, regional alliances, state agencies, universities, subject matter experts, utility commissioners, and utility program developers and implementers.

Webinar #1: EPA Regulations & CHP

January 17, 2012 - 12:00 PM (Eastern Time) Participants in this webinar will learn the implications of a suite of EPA Rules for CHP. Regulations discussed will include air (Mercury and Air Toxics Standards and the Cross-State Air Pollution Rule), water/solid waste (Cooling Water Intake Structures and Coal Combustion Residuals rules), and industrial / commercial / institutional boilers (National Emissions Standards for Hazardous Air Pollutants).

Webinar #2: Showcasing Model Utility IEE Programs

February 7, 2012 - 12:00 PM (Eastern Time) During this webinar, utilities that have implemented successful energy efficiency programs for industrial customers will showcase their design and implementation approaches to other utilities, industrial customers, and key stakeholders.

Webinar #3: Elevating IEE Regulatory Issues for Commissioners

March 6, 2012 - 12:00 PM (Eastern Time)

This webinar will examine regulatory issues that impact utility incentive programs, such as flexibility and consistency in offerings, free-ridership, and risk mitigation techniques. Utility, commission, and industrial customer viewpoints will be shared.

Webinar #4: Facilitating Peer-to-Peer Dialogues on IEE

April 3, 2012 - 12:00 PM (Eastern Time)

Industry has expressed a need for more opportunities to share and learn about the successful energy management programs being implemented by their peers. This webinar will demonstrate how large regional networks have launched peer-to-peer working groups encouraging dialogue among industrial customers that may not otherwise connect. Peer advocacy is a critical step in demonstrating the business case for energy efficiency within the industrial sector.

Webinar #5: Building an IEE Workforce: Needs and Opportunities

May 1, 2012 - 12:00 PM (Eastern Time)

One of the most significant barriers faced by the industrial workforce is a lack of sector-specific energy efficiency-related experience, skills, and knowledge. This webinar will showcase two prominent programs that support IEE development - the Industrial Assessment Centers and the Certified Energy Manager program. Additionally, participants will be encouraged to engage in a dialogue on training, education, and professional certification needs, identifying the qualifications they most value in IEE professionals.

Daniel Bullock directs the U.S. Department of Energy Gulf Coast Clean Energy Application Center (GC RAC), which provides education, project support, and policy development initiatives supporting combined heat and power, waste heat recovery, and district energy technologies. For his efforts on advancing CHP in Texas and Louisiana, Bullock was named 2009's "CHP Champion" by the U.S. Clean Heat and Power Association.

Bullock has over 20 years experience in high technology covering a wide variety of roles such as research, engineering, operations, marketing and sales. Through positions with the IBM Thomas J. Watson Research Center, IBM East Fishkill facility, Advanced Micro Devices, and a number of technology start-up companies in the energy, display, and microelectronics industries, Dan has developed expertise in materials science and process engineering.

Bullock graduated with distinction in solid state physics from Pennsylvania State University, and holds advanced degrees from the University of Texas at Austin in both engineering and public administration.



Dan Bullock
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Webinar #6: CHP Best Practice Policy Implementation

June 5, 2012 - 12:00 PM (Eastern Time)

This webinar will discuss the SEE Action IEE/CHP Working Group paper identifying model approaches to CHP implementation. It will include an overview of successful policies, programs, and projects, as well as feature a deeper discussion of specific state examples.

For details and to register, visit: <http://webinar.govtools.us/>.

To learn more about the IEE and CHP Working Group activities visit:

http://www1.eere.energy.gov/seeaction/combined_heat_power.html.

TXIOF Steam End User Workshop to Highlight Best Practices

Event to be held Feb. 1; Houston, Texas

Early bird deadline Jan. 16

GC RAC partner [Texas Industries of the Future](#) will host a workshop next month in Houston on best practices for steam end users. U.S. DOE's Best Practices Steam End User Training covers the operation of typical steam systems and discusses methods of system efficiency improvement. The training is designed for end users at the energy manager, steam system supervisor, engineer, and operations levels who have steam system responsibilities in industrial and institutional plants. The course is divided into three major categories: steam generation efficiency; resource utilization effectiveness; and steam distribution system losses. For more information, see the [program and registration guide](#).

TXIOF Upcoming Events:

- **Feb. 1** - Steam Best Practices End User Workshop; Houston, TX ([more info](#))
- **Mar. 1** - Texas Industrial Energy Management Forum; Houston, TX (Registration opens Feb. 1)
- **June 7** - Energy Efficiency in the Chemical Process Industries; Galveston, TX
- **Oct. 4** - Texas Industrial Energy Management Forum; League City, TX (in conjunction with AIChE Process Technology Conference)

Professional development hours are available for participation in all programs. Contact Kathey Ferland with questions at 512-232-4823 or kferland@mail.utexas.edu. TXIOF extends a rolling invitation for

[speaker abstracts](#) for many of its events.

Report Projects 46% Increase in Industrial CHP, DG by 2016

CHP and other forms of distributed generation is expected to rise at least 46 percent by 2016, according to a recent report by Pike Research. The report, "Industrial Distributed Generation", examines industrial distributed generation in both the traditional vertically integrated regulatory framework and in the grid-level open wholesale markets and foresees as much as an 85 percent increase in industrial DG under optimal circumstances.

The report addresses lingering market and regulatory barriers to industrial distributed generation, including archaic energy supply options and limited capital assistance. The report foresees fewer barriers in the near term with the advent of new technologies, business models, and grid operations. For instance, third party providers are spurring distributed generation by aggregating smaller units into industrial-sized blocks of power, selling energy, capacity, and ancillary services into wholesale markets or in bilateral contracts with utilities, or incorporating them into energy management systems that combine generation with load curtailment. Capacity forecasts are provided through 2016 under three economic growth scenarios, and company profiles are provided for key industry players.

The report is accessible at a cost on [Pike's website](#). The Executive Summary is available for free.

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