



Texas Industries of the Future

OCTOBER 2013 NEWSLETTER

“INDUSTRIAL WATER REUSE AND DESALINATION” WILL BE THE TOPIC FOR THE FIRST TEXAS INDUSTRIAL WATER MANAGEMENT FORUM ON NOV. 7 FROM 4 TO 6 PM.

Many regions of the US and world face water resource constraints in terms of quantity and/or quality. Current solutions to address this constraint at chemical plants and refineries can incur a significant energy penalty. A common concern of the process industries with Texas locations is that “water is cheap until it’s not there”, which makes it challenging to engage management and secure capital for technology investment before there is a crisis. Some plants are already seeing restrictions on water quantity, although for others, this remains a distant threat. Water reuse and accessing un-conventional sources holds promise. This Forum will explore the interaction between water and energy use in the process industries and the potential of new water management strategies and treatment technologies.

For the complete program, go to <http://TexasIOF.ceer.utexas.edu/> There is no charge to attend, but advance registration is requested, so that we might provide adequate facilities. To register, go to <http://texasiof.ceer.utexas.edu/tiof/1172013WaterForum.asp>

“INTRODUCTION TO IMPROVING ENERGY EFFICIENCY IN CHILLER SYSTEMS” WEBINAR ON NOV. 13. Texas Industries of the Future and the Texas State Energy Conservation Office (SECO) are offering this one-hour introduction to the principles of energy efficiency in chiller plant systems. Attendees of the webinar will learn:

- how to apply a systems approach to improve energy efficiency in chiller plant systems
- predictive and preventive maintenance bestpractices in chillers
- basic energy conservation measures in chiller plant systems

The workshop will use actual operating data from existing chiller systems to demonstrate the impact of energy conservation measures. Students will learn about the Fault Detection and Diagnostics (FD&D) techniques to use at their plants. There is no charge to attend, but registration is required. See the program and how to register at [Chiller Systems Program](#)

REPORT AND PRESENTATIONS AVAILABLE FOR DOWNLOAD FROM THE “TECHNOLOGY FORUM: SUSTAINING INDUSTRIAL ENERGY EFFICIENCY IN PROCESS COOLING IN A POTENTIALLY WATER-SHORT FUTURE”. Participants in the June 19, 2013 “Technology Forum” learned about the water needs of the process industries and the development status of alternatives to traditional cooling tower technology. The day-long meeting in Houston, Texas was organized by the Institute for Industrial Productivity and Texas Industries of the Future at the University of Texas at Austin. Thirty seven attendees from chemical manufacturing, refining, technology development and research organizations gathered to discuss the need for new process cooling technologies that use less water and do not incur an energy penalty for plant operations. Better understanding of process needs and potential

options allows companies to respond to periodic shortages of water which can significantly increase costs and/or curtail production.

Presentations covered a broad range of topics, from optimizing existing cooling towers, to technologies such as hybrid and dry cooling, as well as EPRI's research agenda and a methodology for evaluating technology performance. Participants shared information, brainstormed ideas and prioritized results to help identify future directions for industry in water-short areas. A common concern across the board was that "water is cheap until it's not there", which makes it challenging to engage management and secure capital for technology investment before there is a crisis. Attendees identified research, development and demonstration needs to facilitate the transfer of new technologies developed for the power industry to chemical manufacturing and refining operations.

Presentations and the Forum report are available at http://texasiof.ceer.utexas.edu/docs_pres/conferences.htm

LIKE TO FIND OUT MORE ABOUT HOW TO TAKE ADVANTAGE OF THE TEXAS PROPERTY ASSESSED CLEAN ENERGY (PACE) PROGRAM?

Newly enacted legislation in Texas (SB 385) authorizes municipalities and counties in Texas to work with private sector lenders to enable owners of commercial and industrial properties to obtain low-cost, long-term loans for water conservation, energy-efficiency improvements, and renewable retrofits. Property owners repay the loans using contractual assessments voluntarily imposed on the property by the owner. Sites will use the utility savings to pay for the loan on the efficiency projects that created those savings. You can find out more at <http://www.keepingpaceintexas.org/>

SUPERIOER ENERGY PERFORMANCE PROGRAM PUBLISHES EARLY RESULTS

Nine companies certified under the Energy Department's Superior Energy Performance Program (SEP) have shown an average energy performance improvement of 10% in the first 18 months of implementing SEP with an average payback of 1.7 years. These findings and other results are included in a paper presented at the July Summer Study on Energy Efficiency in Industry hosted by the American Council for an Energy-Efficient Economy and are now provided in a Lawrence Berkeley National Laboratory report, [Assessing the Costs and Benefits of the Superior Energy Performance Program](#). Through SEP, industrial facilities implement the ISO 50001 energy management standard and pursue third-party verification of their energy performance improvements.

TEXAS IINDUSTRIES OF THE FUTURE UPCOMING EVENTS IN 2013/2014

- *Texas Industrial Water Management Forum*, Nov. 7, 2013, Houston, Tx. Program available at <http://TexasIOF.ceer.utexas.edu>
- *Texas Industrial Energy Management Forum*, Feb. 6, 2014. Brady's Landing, Houston. Professional development hours are available for participation in all programs.

If you would like to receive this newsletter in your inbox once a month, go to <http://texasiof.ceer.utexas.edu/tiof/tiofcontact.asp> to subscribe. Your information is never sold.

Kathey Ferland
Texas Industries of the Future

Center for Energy and Environmental Resources
The University of Texas at Austin
512-232-4823
kferland@mail.utexas.edu

<http://TexasOF.ceer.utexas.edu/>