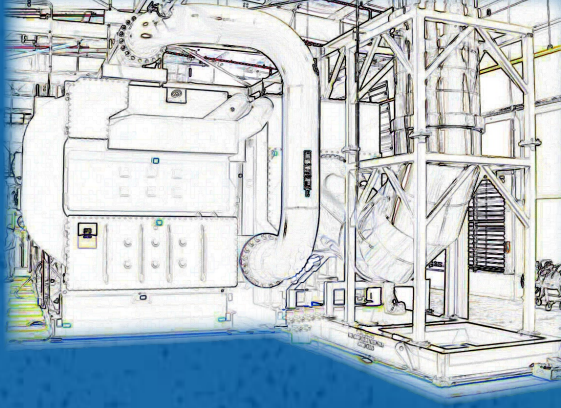
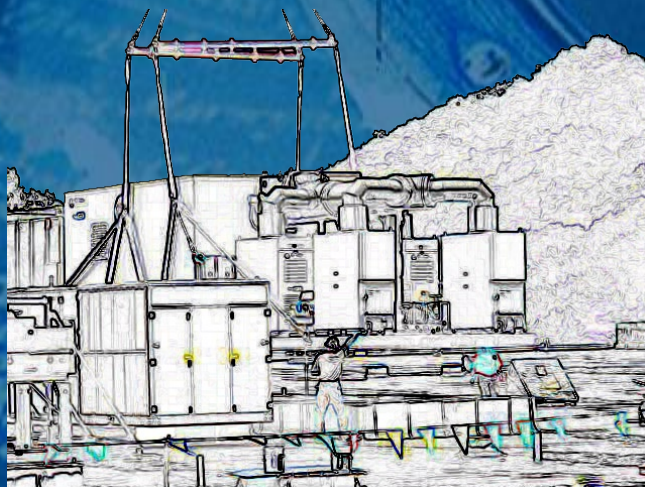
Integrated Energy Systems Multi-media WebCAST



Three CHP Sites Yield Important Lessons Learned

Timely facts, lessons learned and forward looking information on three important cooling, heating and power systems.

September 21, 2005
12 - 4 PM EST



If you are interested in CHP, this is “Must See TV”

Cooling, Heating and Power (CHP) system integration is advancing. The U.S. Department of Energy has partnered with industry to accelerate CHP system integration. This WebCast will provide detailed information on three advanced CHP integration field research, test and verification sites.

On September 21, from noon to 4 PM four broadcast modules will be WebCast. Three one hour in-depth case studies will bring you to the site to see “as built design” and actual operation, and bring you to the studio for interaction with the developers, installers and operators. The final hour-long module will summarize lessons-learned from these three projects, assess technology development, energy cost and reliability trajectories and regulatory and policy trends.

CASE ONE

A&P Supermarket

A new A&P supermarket located in Mt Kisco, NY has installed a UTC Power PureComfort™ CHP system which was commissioned in January of 2005. The system is pre-engineered to properly combine four 60 kWe microturbines and a double-effect absorption chiller driven by the microturbine exhaust heat. The system includes a diverter valve to bypass the exhaust flow around the chiller when additional chilling capacity is not required or desired, preventing unfavorable concentrations of the chiller fluids.

The A&P store loads include electrical power for lighting, motors, and electronics, seasonal space cooling or heating, refrigeration, and dehumidification. Electrical power and space conditioning are straightforward uses of PureComfort™ 240M outputs. In addition to providing summertime air conditioning the chilled water is also used to sub-cool the refrigerant for the store display cases and the warm air exiting the chiller is used to regenerate the desiccant wheel.

CASE TWO

Fort Bragg

The U.S. Army at Fort Bragg, partnered with DOE, Honeywell Energy Services and FEMP to complete a new CHP plant. The project illustrates the value of a "packaged integrated energy system" and will reduce operating costs while improving energy efficiency and enhancing the base's security. The CHP system includes a Solar 5.5 megawatt gas combustion turbine with dual fuel capability; it can switch, on the fly, from base operations using natural gas to #2 fuel oil in the event of an emergency. Part of the turbine exhaust directly fires a Broad absorption chiller that produces up to 1,000 tons of chilled water and also fires a heat recovery steam generator that can produce up to 80,000 pounds of steam per hour. Fort Bragg obtained financing through an Energy Savings Performance Contract with Honeywell.

CASE THREE

Domain Power Park

Last year Austin Energy commissioned this DOE sponsored modular CHP plant. The plant is located at the Domain Industrial Park in north Austin. The Domain CHP plant incorporates a 4.5 MW Solar combustion turbine that directly fires a 2,600 RT Broad absorption chiller.

A critical aspect of this CHP plant is the fact that it uses pre-manufactured or off-the-shelf components. This is expected to significantly lower the cost of replicating similar on-site generation systems (called distributed generation). Off-the-shelf capability allows systems to be scaled up or down in size or configuration, to serve a variety of situations. The CHP plant at the Domain was delivered in two sections and was basically assembled with seven welds. Burns and Mcdonnell designed the facility and Turbine Air Systems provided the compression, exhaust, pump and control modules.

LESSONS LEARNED

Concept

Design

Manufacturing

Installation

Interconnection

Commissioning

Operation

Maintenance

Analysis

RESERVE SEPTEMBER 21, 2005 FOR THE WEBCAST. MORE INFO WILL FOLLOW:

ANY QUESTIONS? CONTACT:

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