

Energy Conservation & CHP

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ENGINEERING P.C.

The leader in energy efficiency and energy conservation

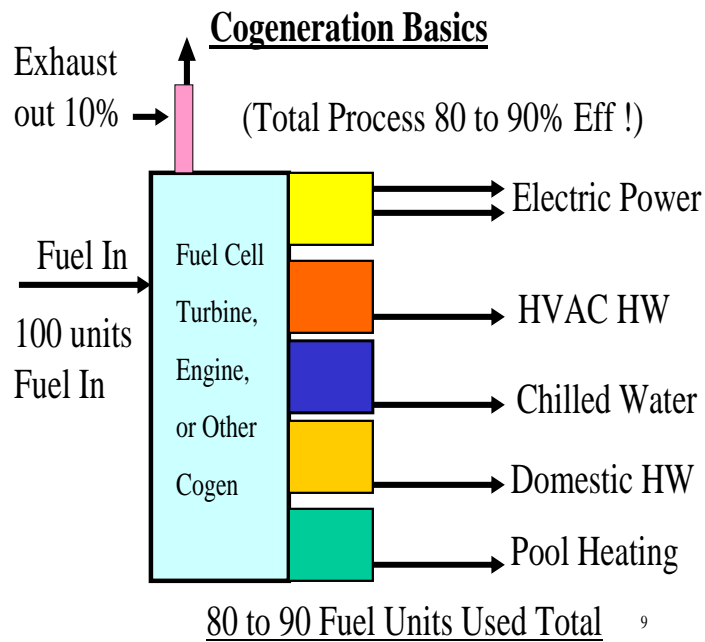


The Corinthian NY, NY. Central Chiller upgrade 2006, saving 778 KW per year.

Special points of interest:

- *Natural Gas Price*
- *Rebates*
- *Incentives*

Saving Energy Helps Everyone



This newsletter is intended to be a tool to provide information about cogeneration and energy conservation, everything from what it is, to how it can be implemented

This newsletter cannot be successful without the input of everyone, so when you have a good idea for an article, project etc., please pass it along so everyone can benefit from it..

Thanks,
Joe Weinschreider

Effect of Natural Gas Pricing on Cogeneration

How does the cost of natural gas really effect the bottom line savings of a combined heat and power plant? This question gets asked all the time and can be a concern with today's volatile fuel market. In a recent paper written by William Cristofaro, P.E. of Energy Concepts, the

effect of natural gas pricing is analyzed across a range from \$.90 per therm up to \$1.40 per therm, and shows that as natural gas costs go up the savings from the cogeneration plant are largely unaffected. This is due in major part to the recovered heat being used to

off-set gas purchased for other "production" purposes, be it boiler heating, cooking etc.

To see a copy of the analysis email your request to: jweinschreider@nrg-concepts.com

3445 Winton Place
Suite 102
Rochester, NY 14623

Phone: 585-272-4650
Fax: 585-272-4676

E-mail: jweinschreider@nrg-concepts.com



25 Chapel st
Suite 902
Brooklyn, NY 11201

Phone: 718-701-5754
Fax: 718-228-5154

E-mail: jweinschreider@nrg-concepts.com

2006 IN REVIEW

2006 was a successful year on many fronts. Energy Concepts successfully commissioned the 6th cogeneration plant in NYC, just the next in a long line of successful plants under EC's belt (55 in all). This event not only displays the success of CHP but is a milestone with regards to client reward and benefits. All totaled, EC cogen plants result in the production of approximately 40 MW of power, the recovered heat off-sets 3,638,009,782 btu's of heating re-

quirements and decreasing overall air emissions by 1,075,234 lbs of Nox (all equal to about 30,000 homes).

The Healthcare and institutional industries continue to be a big benefactor of the combined CHP and energy improvement projects, which have the added benefit of providing new infrastructure and equipment for the facilities which may otherwise be cost prohibitive as stand alone projects.

With Electric rates continually on the

rise, especially in the greater NYC, NJ, and CT areas, cogeneration proves to be a viable solution to controlling operating and utility costs.

The outlook to 2007 shows no signs of changing, with respect to the high energy prices.

Energy Concepts looks forward to the new year and helping clients improve their businesses through energy savings, energy conservation, and cogeneration.

Rebates and Incentives

As rising energy costs continue to push operating expenses higher and higher, facilities and manufacturers continue to look for ways to save.

The solution to this problem is typically to implement energy savings measures consisting of higher efficiency equipment, or new control strategies of existing systems. What ever the solution is, it is important to keep in mind the numerous state and local benefits available to help support most cost savings measures.

NYSERDA has many programs which cover pretty much all of the energy savings measures

that get implemented. In addition, they have special program set up specifically for cogeneration. For cogen plants that meet the NYSERDA efficiency and emissions requirements, the incentives for cogen plants typically start at 30% of the cost of construction for standard internal combustion engine plants, and increase for less used technologies such as fuel cells and microturbines. For more information go to:

www.nyserdera.org

Many local rebates and incentives also exist. In NYC the Energy Cost Savings Program (ECSP) can contribute \$0.0444 per kwh for electricity generated onsite. Plus, the ECSP program will also provide a 35% discount off of the transportation charges for the natural gas used in the cogen unit, and up to a 35% discount for gas used in the existing processes, not offset by the cogen heat recovery. Once implemented the ECSP program continues providing the rebates for 12 years, the first 8 at full funding and the remaining 4 ratchet down.

For more information on the ECSP programs and other NYC programs you can visit the NYC website, or call Energy Concepts.