COGENERATION CONSULTANTS, Inc.

Energy Conservation to Power Generation Since 1991

MAXIMIZING RENEWABLE ENERGY SOLUTIONS.

With offices in Walled Lake, Michigan, Cogeneration Consultants has helped companies, municipalities and others maximize efficiencies by:

- Successfully integrating Combined Heat and Power (CHP)
- Capturing and transforming waste heat into electricity (WHP)
- Capturing and transforming landfill gas into electricity (LFGTE)
- Improving overall facility energy efficiency

For more than 20 years, we've completed scores of energy projects across the country. Highly focused in our approach, clients benefit from customized solutions that result from greater involvement and a fuller understanding of their goals and challenges.

COGENERATION CONSULTANTS, INC.

Why Cogeneration

The Cogeneration System uses proven natural gas-fueled engines to generate electricity.
Generated Electricity is used by the facility, offsetting utility purchased electricity.
Significantly reducing the electric utility bill.

Simultaneously, free "waste" heat is recovered from the engine's exhaust system.
Captured heat is then used to offset fuel consumed by the facility's boilers.
Natural gas consumed by the boilers will be reduced.

Waste heat recovered from the cogeneration system can be fed to an absorption chiller.
Reduces the load on the sites other chillers.

Cogeneration Can Achieve Over 80% Resource Utilization

Impediments to Deploying Cogeneration

Higher Capital Cost than large scale power generation
Excessive Utility Application Fees Required
Utility Rate structures include Unwarranted Fees
Businesses Incorporating CHP are deviating from their Core Business Mission

Previous Projects

Ajax Metal Processing, Detroit	500 kW	Plating, Coating
Clarion Hotel, Farmington Hills	125 kW	Hotel
Voss Steel, Taylor	1000 kW	Coil Steel Processing
W.S. Lantz Steel, Detroit	1000 kW	Coil Steel Processing
Focus:HOPE, Detroit	4000 kW	Machining
Thornapple Valley, Detroit	3000 kW	Food Processing
Mercy College, Detroit	525 kW	Institutional
University Microfilms, Ann Arbor	525 kW	Chemical Processing
CRM, Traverse City	525 kW	Plating, Coating

Why Combined Heat and Power is Beneficial to All

CHP technologies present Michigan with a great opportunity to increase its clean, efficient, reliable baseload power generation, while bolstering its businesses and lowering energy cost.

Michigan must treat this well-established technology seriously and fairly in its energy planning.

A Final Thought

The astonishingly low percentage of CHP in the US raises serious questions about American energy policy. It suggests that major legislative mandates of the past thirty years designed to spur work on CHP have resulted in only limited success. Despite billions of dollars in research and development, procurement, tax incentives, tax credits, subsidies, standards, and financial assistance, the impediments to a transition to CHP technologies remain social and cultural as much as they are technical. Until policy makers target these remaining social barriers in the same way that technical impediments were targeted twenty years ago, the promise of CHP in the US will remain unfulfilled.

Instead of continuing to support mostly research and development on refining existing CHP technologies and discovering new ones, one option could be to shift government support to efforts aimed at increasing public understanding of energy and electricity policy. The US has already invested billions of dollars in the technical side of the energy problem. It may now be time to target the remaining social barriers in the same way the government has committed resources to promoting technological options.

A FUTURE OF RENEWABLE ENERGY

Alan B Croll
COGENERATION CONSULTANTS, INC.
100 North Pond Drive
Ste B
Walled Lake, MI
810.499.0831
Al@CogenCon.com